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Acharya Prafulla Chandra Ray

A collection of writings

Vol-IV

59

Life & Experiences of a Bengali Chemist

Vol-I & II

Editor
Prof Anil Bhattacharya

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Preface

Professor Suranjan Das
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I am indeed happy to learn that the fourth volume of proposed multi-volume collection of Acharya Prafulla Chandra Ray's writings and speeches is being published. I am sure it will evoke the same quality of appreciation as the preceding volumes had done. It contains reprints of the two volumes of the Acharya's autobiography, *Life and Experiences of a Bengali Chemist*. The autobiography not only enlightens us on the making of the illustrious son of Bengal, nay India, but also provides us with sharp insights to the intellectual history of Bengal of the time when the Acharya lived and worked. The reminiscences of the Acharya should be a valuable source-material for reconstructing the social and intellectual trends in a crucial period of the history of Bengal.

In the preface to the first volume of *Life and Experiences of a Bengali Chemist*, the Acharya had lamented:

> *While a student at Edinburgh I found to my regret that every civilized country including Japan was adding to the world's stock of knowledge but that unhappy India was lagging behind. I dreamt a dream that, God willing, a time would come when she too would contribute her quota.*

But in the second volume of this work we sense a spirit of optimism. Ray thus writes:

> *Half-a-century has since then rolled by. My dream I have now the gratification of finding fairly materialized. A new era has evidently dawned upon India. Her sons have taken kindly to the zealous pursuit of different branches of Science. May this torch thus kindled burn with greater brilliance from generation to generation!*

It is our duty to ensure that the faith Acharya Prafulla Chandra Ray had reposed in our youth becomes a reality. One way of contributing to this process is to acquaint the young generation with the life and thought of the Acharya. It is in this context we decided to publish collections of his writings and speeches as a part of the programme the University had initiated to commemorate the 150th birth anniversary of this great son of the country. This publication venture would not have been possible without the collaboration of Acharya Prafulla Chandra College and the personal initiative of Professor Anil Bhattacharya and his Colleagues. On behalf of the University I sincerely thank them and express our gratitude to them.

Suranjan Das

Suranjan Das
Vice-Chancellor
University of Calcutta.

Editor's Note

We feel extremely happy in preparing for publication (Reprint) of this Fourth Volume of the series – Acharya Prafulla Chandra Ray – A collection of writings.

Frequently a thought has cropped in my mind – why this *Autobiography of Bengali Chemist* deserves reprint? Is it only to quench our academic thirst or it has got any relevance in the present day context? The answer is quite discernible in the writings of Sir. P.C. Ray.

'I have been something more than a mere chemist'.

Surely P.C.Ray took immense interest and active participation in rejuvenating social, political and economic rebuild of the people in general and particularly of Bengal. The volumes the Calcutta University published are related to the diverse activities of the Acharya.

I quote from the preface to the first volume of P.C. Ray's *Life and Experiences of a Bengali Chemist*.

> *It will be found, however, that most part of the subject matter is applicable to India as a whole. Even the economic condition of Bengal applies mutatis mutandis to almost any province in India.*

P.C.Ray wrote:

> *Social and economic problems relating to India and especially to Bengal have always claimed a portion of my attention, and thus what I have written is inextricably interwoven with my life and experiences. If now and then I have been drawn into realms which might be considered as political it is because, as Professor Bowley observes, "economic and political events cannot be disentangled."* (Preface to the 2nd Volume of Life and Experiences of a Bengali Chemist).

The first volume of this book was published in 1932 and the second one in 1935 but P.C.Ray himself was 'surprised at the favourable reception accorded to it not only in India but also in England and America.'

During his 150th year of birthday celebration the Autobiography is still relevant.

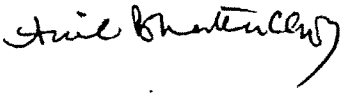
'The problems of social and economic which were acute then have become acuter still'.

We gratefully acknowledge our indebtedness to Sanskrit college and Bangiya Vigyan Parishad library authorities. With pride we remember that a few months ago the Royal Society of Chemistry, London, offered a "Chemical Plaque" in memory of the only non-European Chemist for his contribution to Chemical researches.

It will be discourteous for us if we do not mention the praiseworthy and inspiring role of Professor Suranjan Das, Vice-Chancellor, Calcutta University for the help he has rendered for making possible the publication of such volumes. We also acknowledge the praiseworthy role of Professor Dhrubajyoti Chattopadhyay, Pro-Vice-Chancellor (Academic) and Professor Mamata Roy, Pro-Vice-Chancellor (Finance & Business Affairs), Professor Basab Chowdhury, Registrar and Sri Pradip Ghosh, Press Superintendent, Calcutta University. The name of Prof. Soumitra Sarkar, Librarian, Central Library, Calcutta University is to be specially mentioned for his valuable suggestions.

Last, but not the least is the contribution of Dr. Saktibrata Bhowmick, Principal, Acharya Prafulla Chandra College, New Barrackpore. We gracefully acknowledge him. We are indebted to the printer JÑĀNĀLOK Infotech for this work.

We would be expecting the criticism from the readers.



(Prof. Anil Bhattacharya)

Editor.

LIFE AND EXPERIENCES
OF
A BENGALI CHEMIST

PRAFULLA CHANDRA RAY

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To

The Youth of India

This volume is affectionately inscribed
in the hope that its perusal may
in some measure stimulate
them to activities.

" . . . . . nothing extenuate,
Nor set down aught in malice : "—*Othello.*

PREFACE

While a student at Edinburgh I found to my regret that every civilized country including Japan was adding to the world's stock of knowledge but that unhappy India was lagging behind. I dreamt a dream that, God willing, a time would come when she too would contribute her quota.

Half-a-century has since then rolled by. My dream I have now the gratification of finding fairly materialized. A new era has evidently dawned upon India. Her sons have taken kindly to the zealous pursuit of different branches of Science. May the torch thus kindled burn with greater brilliance from generation to generation!

The conditions and handicap under which this volume appears have been related in the concluding envoy of the book and need not be repeated here. In fact, I find to my dismay that this very year I have to tour some fifteen thousand miles across the length and breadth of this land in response to invitations from several Universities and organisations.

In these days of awakened national consciousness, the life story of a *Bengali* chemist smacks rather of narrow provincialism. As there are two or three chapters which relate exclusively to Bengal, I have been reluctantly compelled to substitute *Bengali* for *Indian.* It will be found, however, that most part of the subject matter is applicable to India as a whole. Even the economic condition of Bengal applies *mutatis mutandis* to almost any province in India.

A large mass of materials originally meant for this present volume has been left out, as it has already grown, I fear, to a disproportionate bulk. If circumstances prove favourable, a supplementary volume may come out later on. It is necessary to point out that the spellings of Indian names and places have been retained as given in the original sources. So dissimilarity is unavoidable.

I cannot conclude without expressing my deep debt of obligations to Mr. Hariprasad Bose who chivalrously took upon himself the task of revising the Manuscript and seeing it through the press ; indeed, it is not too much to say that but for his unremitting and ungrudging labour the volume could scarcely have appeared in its present form. I have also to express my sincere thanks to Mr. G. C. Sen, the Local Trade Intelligence Officer, who has always with his unfailing courtesy supplied me with information whenever required.

P. C. R.

October, 1932.
UNIVERSITY COLLEGE OF SCIENCE
AND TECHNOLOGY
CALCUTTA.

CONTENTS

PART I

AUTOBIOGRAPHICAL.

CHAPTER I.
Birth, Parental Home, Ancestry, Early environment ... 1
CHAPTER II.
Absentee Landlords—The Deserted Village—Water Famine—Villages Breeding Grounds of Cholera and Malaria ... 13
CHAPTER III.
Education in Village—Removal to Calcutta—Description of Calcutta Past and Present 19
CHAPTER IV.
Education at Calcutta 26
CHAPTER V.
Departure for Europe—Educational Career in England—"Essay on India"—Tour in the Highlands 50
CHAPTER VI.
Returning Home—Professor at Presidency College 76
CHAPTER VII.
Bengal Chemical and Pharmaceutical Works 92
CHAPTER VIII.
New Chemical Laboratory—Mercurous Nitrite—History of Hindu Chemistry 112
CHAPTER IX.
Reminiscences of Gokhale and Gandhi 123
CHAPTER X.
Second visit to Europe—Partition of Bengal—Impetus to Scientific Study 129
CHAPTER XI.
Intellectual Renaissance in Bengal 140
CHAPTER XII.
Dawn of a New Era—Original Scientific Researches in Bengal—Indians Debarred from Higher Educational Service ... 152
CHAPTER XIII.
Original Research—Research Scholars—Indian School of Chemistry 160

CHAPTER XIV.
Indian School of Chemistry (*contd.*)—Retirement from the Presidency College—The Work of Prof. Watson and his pupils—Research Students—Indian Chemical Society ... 182
CHAPTER XV.
University College of Science 196
CHAPTER XVI.
Use and Misuse of Time 208
CHAPTER XVII.
Life outside the Test tube 227

PART II

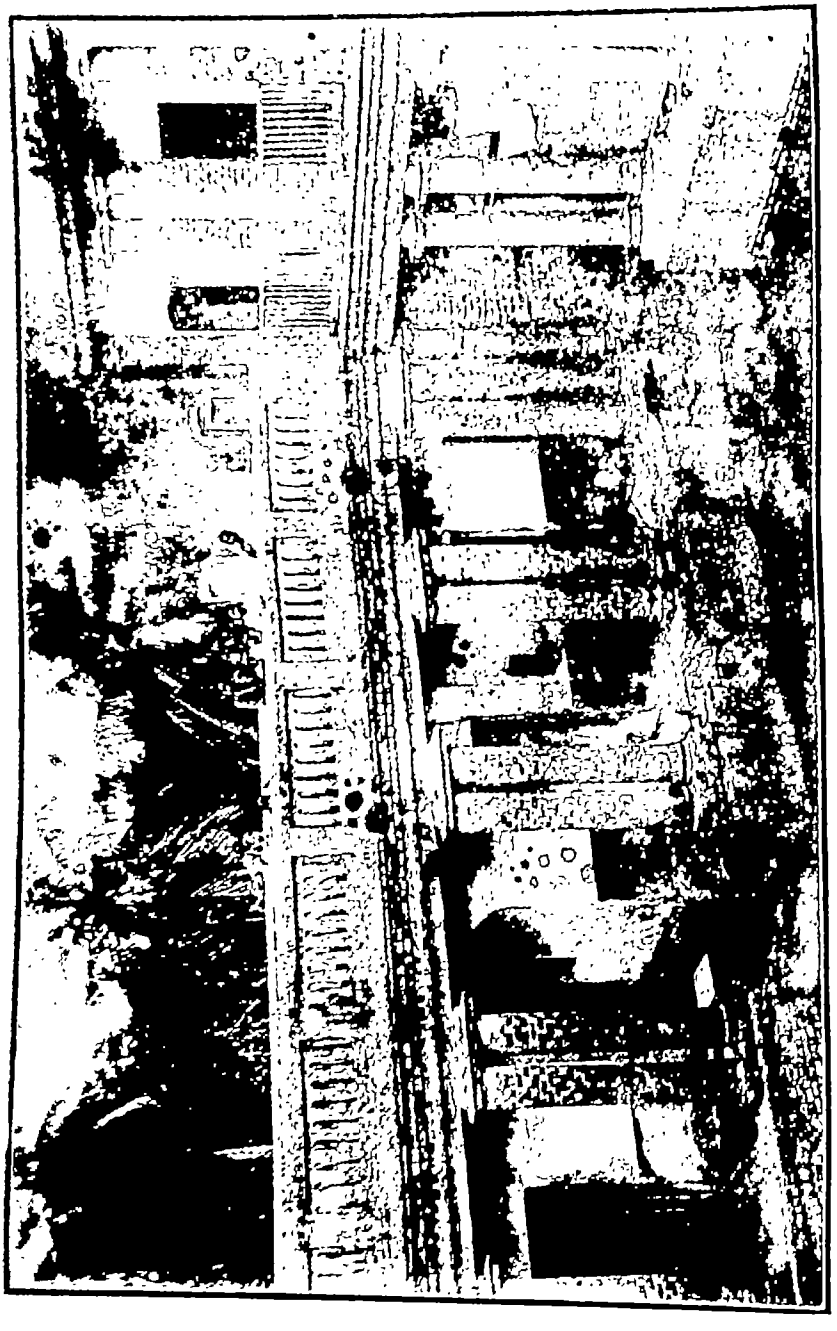
Educational, Industrial, Economic and Social.

CHAPTER XVIII.
Insane Craze for University Education 259
CHAPTER XIX.
Industry precedes Technological Institute—The Great Illusion —Technology before Industry—The Cart before the Horse ... 316
CHAPTER XX.
Industrial Enterprises 337
CHAPTER XXI.
Gospel of Charka—Lament of a Spinner 361
CHAPTER XXII.
Modern Civilization—Capitalism, Mechanization & Unemployment 379
CHAPTER XXIII.
Economic Condition of Rural Bengal in the Sixties and Onwards 395
CHAPTER XXIV.
Economic Condition of three Bengal Districts 412
CHAPTER XXV.
Bengal—the Milch Cow—Drain of the Wealth of Bengal due to Political Subjection 428
CHAPTER XXVI.
Bengal—the Milch Cow (*contd.*)—The Failure of the Bengalis and the Economic Conquest of Bengal by Non-Bengalis ... 440
CHAPTER XXVII.
Caste System—Its baneful effect on Hindu Society ... 502
CHAPTER XXVIII.
The Envoy 537
INDEX 545

PART I

AUTOBIOGRAPHICAL

P. 182, line 9, Rajendra Nath to be read as Rajendra Lal.
„ 313, „ 7, Lal Gopal „ „ „ „ Joy Gopal.



OUTER QUADRANGLE OF THE ANCESTRAL ABODE.

CHAPTER I

BIRTH, PARENTAL HOME, ANCESTRY, EARLY ENVIRONMENT

I was born on August 2, 1861. This year, it is interesting to note, is memorable in the annals of Chemistry for the discovery of thallium by Crookes. My native village is Raruli, in the district of Jessore (at present Khulna). It is situated on the banks of the river Kapotakshi, which follows a meandering course for forty miles (only 16 miles as the crow flies) till it reaches Sagardari, the birth place of our great poet Madhusudan Datta. And higher up lies the village of Polua Magura known of late years as Amrita-bazar, the birth place of Sisir Kumar Ghosh, the veteran journalist. The village adjoining Raruli on the north is Katipara, the residence of the Zemindars of the Ghosh family, from which came the mother of Madhusudan.[1] These two villages are often hyphened together and called Raruli-Katipara.

My father was born a little over a century ago (1826). He learned Persian, which was then the court language, under a Maulavi (a Moslem teacher of Arabic and Persian), acquiring considerable proficiency in this tongue and also picking up a smattering of Arabic. He often used to say that, though he was born and brought up in an orthodox Hindu family, it was the *divan* of Hafiz that completely changed his mental outlook. He even used to partake secretly of the savoury dish of chicken-curry. It is scarcely necessary here to add that if any member of the family had come to know of it, he would have

[1] Janhavi Dasi, the mother of Madhusudan, was the daughter of Gouricharan Ghosh, Zemindar of Katipara.

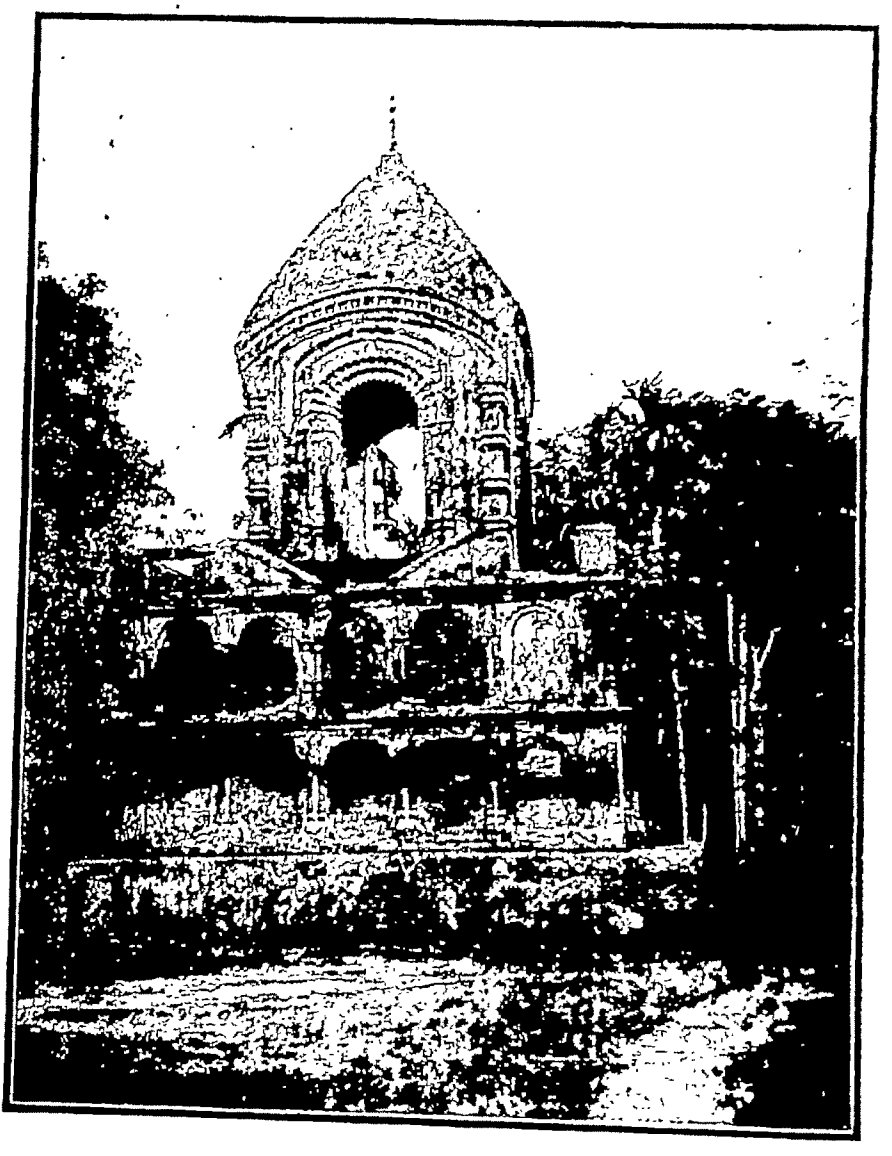
been shocked and scandalised at such conduct. After completing his education under the parental roof, my father was sent to Krishnagar (Nadia) about the year 1846, in order that he might have the benefit of an English education at the collegiate school, which had just been founded. While preparing for the junior scholarship examination he was among the fortunate ones who sat at the feet of the renowned and saintly teacher, Ramtanu Lahiri. As Captain D. L. Richardson was then Principal of Krishnagar College, my father, though not exactly a student of his, must have imbibed something of his spirit and fervour. I have still with me a copy of the *Lives of British Poets* by this pioneer educationist of Bengal. It is a book I have read over and over again and treasure as a priceless heirloom.

Had my father not been abruptly called away he would surely have made progress in the college department in due time and sat for the senior scholarship examination.[2] He had to give up his studies prematurely because he was the only surviving son of my grandfather, who held a Seristadarship at Jessore, a lucrative post in those days ; and there was no one at home to look after the family estates. Another reason seems to be that about this time Madhusudan Datta had embraced Christianity, which sent a thrill of horror into Hindu society. My grandfather feared that my father after imbibing the heretical notions then preached by the *alumni* of the old Hindu College might be led to renounce the faith of his ancestors.

Here I may allude for a moment to our family history in a setting of the political, social and economic conditions prevailing at the time. The Ray Choudhuris of Bodh-Khana,[3] belong to a prosperous, enterprising, and adventurous stock. Many of its scions had held important appointments under the Nawabs

2 These were pre-university days.

3 The curious reader may consult with advantage Prof. Satis Chandra Mitra's *History of Jessore and Khulna* (in Bengali).



TEMPLE AT KATIPARA.

of Bengal and got large grants of lands in the newly colonised *abads* (settlements) in the deltaic regions of Jessore.

The Muslim Pirs in the 14th, 15th, and 16th centuries, with the zeal of the Pilgrim Fathers, carried the banner of Islam to these quarters and planted colonies; and the very names of the places round about bear eloquent testimony to their zeal and activities, e.g. Islamkati, Mahmudkati,[4] Hoseinpur, Hasnabad (i.e. Hosein Abad). Conspicuous among those Islamic path-finders stands the name of Khanja Ali, who built the famous "Sat Gambuj" or "Sixty domes" near Bagerhat about 1450 A.D. Some ten miles down Raruli on the river Kapotakshi is another structure which is also attributed to the above-named pioneer coloniser.

When, during the extension of cultivation into the Sundarban forest, some people were clearing the jungle along the banks of the Kapotakshi river, at a point about six miles south of Chandkati, they came upon an ancient mosque, close by the river-bank and they called the village by the name of Masjid Kur—"the digging out a mosque." The building, thus found, proclaims at first glance that it owes its origin to the same hand that built the "Sat Gambuz".

My remote ancestor migrated to this village at the time of the Emperor Jahangir or it may be a little later and held grants of land in several of the adjoining villages. My great-grandfather, Manik Lal Ray, rose to the position of Dewan of the Collector of Nadia (Krishnagar) and Jessore. In the early days of British rule, the Dewans, the Nazirs and Seristadars

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4 *Kati* (lit. a log of wood) is added as a suffix to many clearances, which had been colonized in the Sundarbans after the cutting down of the trees peculiar to the jungles.

Cf. Westland: *Report on the District of Jessore*, p. 20; Hunter (W. W.) rightly says:

"The Bengali landholder delights to trace his origin to some remote ancestor who came from the North and cut down the jungle. The eponymous village here is still the man who dug the tank and ploughed up the adjacent fields".—*England's Work in India* (1880).

were the right-hand men of the British Collectors of land revenue and of Magistrates and Judges.

Lord Cornwallis, the author of the Permanent Settlement in Bengal, evidently prejudiced against the system of corruption and venality, which obtained under the Nawabs of Bengal and at the beginning of the East India Company's rule up to the time of Warren Hastings, practically excluded Indians from all the higher and lucrative posts in the administration. No doubt he had apparent justification for the course he adopted. Navakrishna, afterwards Raja Navakrishna, and the founder of the Sovabazar Raj family, Munshi of Robert Clive, drawing a nominal monthly pay of Rs. 60/-, spent nine lakhs of rupees on the occasion of his mother's Sradh (funeral ceremony), and nine lakhs of rupees in those days would represent at least half a crore (=£400,000) at the present day. The Dewan of Warren Hastings, Gangagobind Singh, who was the founder of the Paikpara Raj, accumulated immense wealth and acquired rich zemindaries by expropriating the older territorial magnates, while Kanta Mudi (Mudi—lit. a grocer), who harboured Warren Hastings in his petty shop at Cossimbazar at imminent risk of his own life, was not forgotten by his grateful protégé when he became the arbiter of the destiny of Bengal. Hastings sought out his old benefactor and showered rich rewards on him in the shape of escheated estates wrung out from the hapless owners who failed to meet the iniquitous exactions of the Company. It is unnecessary here to allude to the atrocities perpetrated by Gangagovind Singh and by Devi Singh, founder of the Nashipur Raj, at Rungpur, for they are familiar to the readers of Burke's *Impeachment of Warren Hastings.*

One might suppose that I am making a laboured apology for the ostracism of Indians that is justly regarded as a blot on the otherwise beneficent rule of Cornwallis.[5] Nothing can

[5] Cf. "It has been the opprobrium of our administration ever since the days of Lord Cornwallis", that "with the progress of our empire a blight comes over the prospects of the higher and more influential classes of native society", that "there is no room for their aspirations

be farther from my object. In fact, the remedy adopted proved worse than the disease. The Civil Servants, utterly ignorant of the language, manners and customs of the people were often helpless tools in the hands of their unscrupulous Indian subordinates, who would have been more than human, had they failed to take advantage of the enviable position they held. There would be, say, a failure of the crops and the unlucky Zemindar, trembling lest the rigorous enforcement of the "Sunset Law" would reduce him to abject penury at one stroke of the auction hammer, would apply to the Collector who in exercising his discretionary power was often guided by the Seristadar or Dewan ; the latter would throw his influence into the scale in proportion as his palm was greased. In criminal cases the decision of the Judge was also more or less coloured by the hints and suggestions of the Peshkar, and as there was no jury system, the importance of these underlings can well be

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in our system of government; they sink down to one dead level of depression in their own land".—Marshman : *History of India.*

"It would be difficult to discover in history another instance of this ostracism of a whole people. The grandsons of the Gauls, who resisted Cæsar, became Roman senators. The grandsons of the Rajpoots, who opposed Babar in his attempt to establish the Mogul power and at the battle of Biana all but nipped his enterprise in the bud, were employed by his grandson, Akbar, in the government of provinces and the command of armies, and they fought valiantly for him on the shores of the Bay of Bengal and on the banks of the Oxus. They rewarded his confidence by unshaken loyalty to the throne, even when it was endangered by the conspiracies of his own Mahommedan satraps. But wherever our sovereignty was established in India the path of honourable ambition, and every prospect of fame, wealth and power, was at once closed on the natives of the country. This proscription was rendered the more galling by comparison with the practice of the native courts around where the highest prizes were open to universal competition". —*Ibid.*

"But we place the European beyond the reach of temptation. To the Native, a man whose ancestors perhaps bore high command, we assign some ministerial office, with a poor stipend of twenty or thirty rupees (£2 or £3) a month. Then we pronounce that the Indians are corrupt, and no race of men but the company's European servants are fit to govern them".—Sir Henry Strachey (1820).

guessed. Instances were by no means rare in which the conscience of the helpless Judge was in the safe custody of the Peshkar.

My great-grandfather, Manik Lal Ray was, as has already been said, a Dewan[6] of the Collector of Krishnagar and later of Jessore a century ago, in which capacity his emoluments in the shape of douceur must have been enormous. When I was a child I used to hear fairy tales of the wealth amassed by him. Company's *sicca rupees* used to be periodically despatched home in big earthen pots swinging equipoised from the ends of a bamboo pole flung over the shoulders of trusty carriers. As the Nadia-Jessore Grand Trunk Road was infested with dacoits these pots were superficially covered with *batasa* (thin sugar puffs) to disarm all suspicion.

My grandfather Anandalal Ray was Seristadar of Jessore and added considerably to the family estates. He died suddenly of apoplexy at Jessore ; my father hurried to the place from Raruli but was too late to receive from his lips his parting message.

My great-grandfather must have piled up what may be regarded as a fortune, but the landed property he purchased about the year 1800 represented only a fraction of his wealth.

---

6 The term Dewan was used in a somewhat loose and comprehensive sense. Thus Dwaraka Nath Tagore, grandfather of Rabindranath, was the Dewan of "Nimak Chouki" that is, the Salt Toll house. Mr. Digby in the account prefixed to Ram Mohan Ray's translation of *Kena Upanishad and Abridgement of the Vedanta* says, "He (Ram Mohan) was afterwards employed as *Dewan* or principal native officer in the collection of revenues, in the district of which I was for five years (1809-14) Collector in the East India Company's Civil Service".—Miss Collet's *Life and Letters of Raja Ram Mohan Roy*, London, 1900, pp. 10-11.

"In Settlement work in those days, the trusted native Seristadars were, as a rule, the chief agents employed by the Collectors, who were guided to a large extent by their decisions and counsels".—Sivanath Sastri : *History of the Brahmo Samaj*, p. 12.

See also an article in the *Modern Review* by B. N. Bannerji, May 1930, p. 572.

Several explanations have been offered to account for the disappearance of his surplus wealth. When a mere child I often used to hear from the lips of the oldest surviving ladies of the family that my great-grandfather was one day playing chess when a letter was delivered to him ; he stopped for a moment, read it through and only heaved a deep sigh. There was, however, no visible manifestation on his countenance and he went on with the game as if nothing unusual had happened. It appears that the bank in which a considerable portion of his savings was deposited had failed.[7] He was, however, as I have indicated, too shrewd a man to have placed all his eggs in one basket and he seems to have followed the custom of the good old days of hoarding his wealth underground or secreting it in the vaults in the ground floor or inside the pucca brick walls. As a matter of fact, one such empty vault I came across when I was a child.[8] The family tradition is that my grand-

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7 There is reason to believe that it was the banking house of Palmer & Co. the failure of which in 1829 involved in ruin several European and Indian depositors.

8 In England towards the end of the seventeenth century (1692) similar difficulties and risks existed as regards investments, hence the practice of hoarding was common. *Cf.* "We are told that the father of Pope, the poet, who retired from business in the city about the time of the Revolution, carried to a retreat in the country a strong box containing nearly twenty thousand pounds, and took out from time to time what was required for household expenses and it is highly probable that this was not a solitary case.

* * * * * *

But, in the earlier part of the reign of William the Third, all the greatest writers on currency were of opinion that a very considerable mass of gold and silver was hidden in secret drawers and behind wainscots".—Macaulay : *History of England* (1896), vol. iv, p. 320.

In several villages in Bengal and Bihar and I believe in other parts of India as well, where the light of western "civilization" has not yet penetrated, the habit of hoarding savings underground still persists; even in enlightened France this practice is at present in vogue. Cf. "The French peasant is still, after his immemorial habit, hoarding money in the woollen stocking under the floor of the house or burying in the ground."—*Daily Herald* (quoted in the Calcutta dailies, Feb. 10, 1932).

*

father knew the secret, but the abrupt termination of his life prevented it from being communicated to my father.

The upper story of the inner quadrangle of our ancestral house, still existing, has its doors armour-plated, so to speak; i.e., coated with sheets of iron riveted with bolts, so that dacoits might not easily break open the doors, and a portion of it still goes by the traditional name—*malkhana* (lit. in Persian, treasure house). My father probed several places in the walls in search of the treasure but to no purpose and patches can still be recognised here and there in which new bricks and mortars have been inserted. Years after, when my father was involved in pecuniary embarrassment and the family estates began to be sold one after another, my mother, though singularly free from superstitious notions, considering the time in which she lived, sought the help of a *Guni* (lit. Sans., an accomplished man, adept or diviner) and according to his indication dug open a place underneath the staircase but to no purpose and to no little merriment on my part as I never had any faith in such divinations.

At the age of 25 or so, my father undertook the management of his estates. His intellectual equipment was of a high order. He knew Persian well and as I have already said had also a smattering of Arabic and Sanskrit. He had a fair knowledge of classical English literature and it was from his

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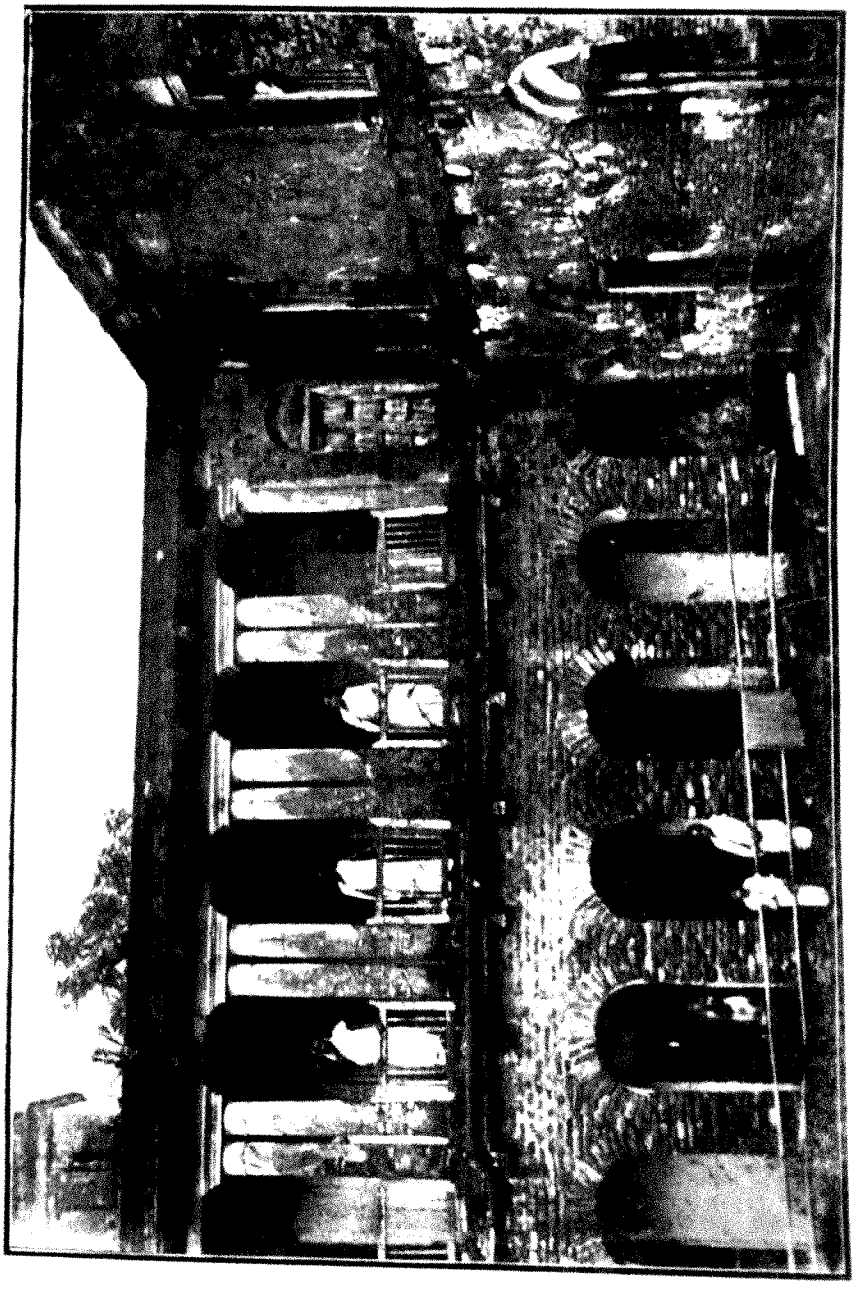
Although Postal Savings Bank as also the Co-operative Credit Society's Bank is now available within easy reach of many villages, the old custom persists; as H. Sinha observes:

"The big Bengali *mahajans* are also financed by *gucchits* or deposits from people who know and trust them. Even in these days of Telegraphic Transfers and Drafts issued by banks of undoubted status and of Remittance Transfer Receipts issued by the Government, considerable amounts are remitted through indigenous bankers. For one thing, organised banks have not penetrated to remote places where indigenous banking alone is carried on. Secondly, bank instruments written in English can appeal only to the very small percentage of the population who know that language. In short, the indigenous system survives in spite of its numerous defects because it fits in with the daily life of the people."—*Early European Banking in India*, p. 240.



INNER QUADRANGLE OF THE ANCESTRAL HOUSE.

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lips that I heard for the first time in my life, when a mere boy, of such works as Young's *Night Thoughts*, and Bacon's *Novum Organum*. He was a regular subscriber to *Tatwabodhini Patrika*, *Vividhartha Sangraha*, the journal conducted by Rajendra Lal Mitra, *Hindu Patrika*, and *Amrita Bazar Patrika* and its fore-runner *Amrita Prabahini* and *Soma Prakasa*. Carey's translation of the *Holy Bible*, Mrityunjaya Vidyalankar's *Probodh-chandrika* and *Rajabali*, Lawson's *Paswavali* (Tale of Animals) and Krishna Mohan Banerjee's *Encyclopædia Bengalensis*[9] were also on the shelves of his library. My great-grandfather was also evidently a man of a fair degree of culture, considering the age in which he lived, and a proof of it is afforded by the fact that he was a regular subscriber to *Samachar Darpana*, almost the first Bengalee journal started by the Serampore missionaries in 1818, and during my boyhood I found files of it rotting in the library). My father began his career like a country gentleman in the days of Fielding and he had many traits in common with Squire Allworthy. Being a man of means he could well afford to indulge his tastes; he was much of Calcutta and mixed in the refined society of that city, made the acquaintance of such leading men as Jatindra Mohan Tagore, Digambar Mitra, Kristo Das Pal, and Iswar Chandra Vidyasagar. My father was also enrolled as a member of the British Indian Association in the early sixties of the last century. He was fond of music and could play on the violin with the skill of an *ostad* (adept). In the evenings he used to have regular musical soirées and later he was naturally drawn towards Sourindra Mohan Tagore and his Sangitcharyya (an expert teacher in music) Kshetra Mohan Goswami both of whom have done great service in the way of revival of Hindu music in Bengal. One of the first acts of my father, when he took up the management of his estates, was to dismantle the *sadar* (outer) quadrangle of the ancestral residence and build it anew. In architecture also

9 A bilingual reader in five parts (1843), dedicated to Lord Hardinge.

his æsthetic taste found ample scope. Digambar Mitra (afterwards Raja and C. S. I.), who purchased a Zemindari called Soladana adjacent to our village, partook of the hospitality of my father for a day or two and expressed his agreeable surprise at seeing a house with a furnished drawing room which might vie with any in Calcutta, though situated almost on the boundary of the Sundarbans.

As I have said above, my father settled down on his estates in the year 1850 i.e. eleven years before my birth. As he had imbibed the ideas of "Young Bengal", he was one of the pioneers of the educational movement in the district and almost the first girls' school was opened by him at Raruli ; side by side with this a Middle English School was also started. Seventy five years ago such schools were rare in most parts of Bengal and were the pride of the villages in which they were located. At present the district of Khulna alone boasts of as many as forty-five High English Schools teaching up to the Matriculation standard as also of two first grade colleges and a Girls' High School.

The economic revolution during my life-time, which is vivid and distinct to my mind's eye, should demand some attention here. But as it would break the thread of my narrative, a separate chapter has been reserved for it.

My father was heir to landed estates fetching an annual income of nearly Rs. 6000/- a year ; but it was only a fraction of the actual income enjoyed by the family for the previous two generations ; for my great-grandfather and grandfather had, as I have already said, held lucrative posts. As an instance of the additional property inherited by my father, it may be mentioned that on the occasion of his marriage my grandfather presented my mother with ornaments worth some ten thousand rupees ; the silver plate in his possession was also worth a good round sum. I remember seeing in my childhood several guests of position, being served simultaneously on silver plates, dishes, and cups. My mother used to show me with conscious pride gold *mohurs* with the stamp of the Mogul Emperors. A

portion of her ornaments was sold off with my mother's consent so that it might be converted into a profitable investment. In fact, a Zemindary was purchased in her own name. My father, who was evidently familiar with the principles of political economy, often used to say that it was sheer folly to lock up savings in jewellery as they brought in no return. As he also had considerable cash in hand, he opened a money-lending business, which for several years was a profitable concern. In those days, there was no safe investment for people of limited income and it was a constant source of anxiety with them how to guard their life's savings against theft or robbery. As a result it was the prevalent custom to bury ornaments and cash underground.

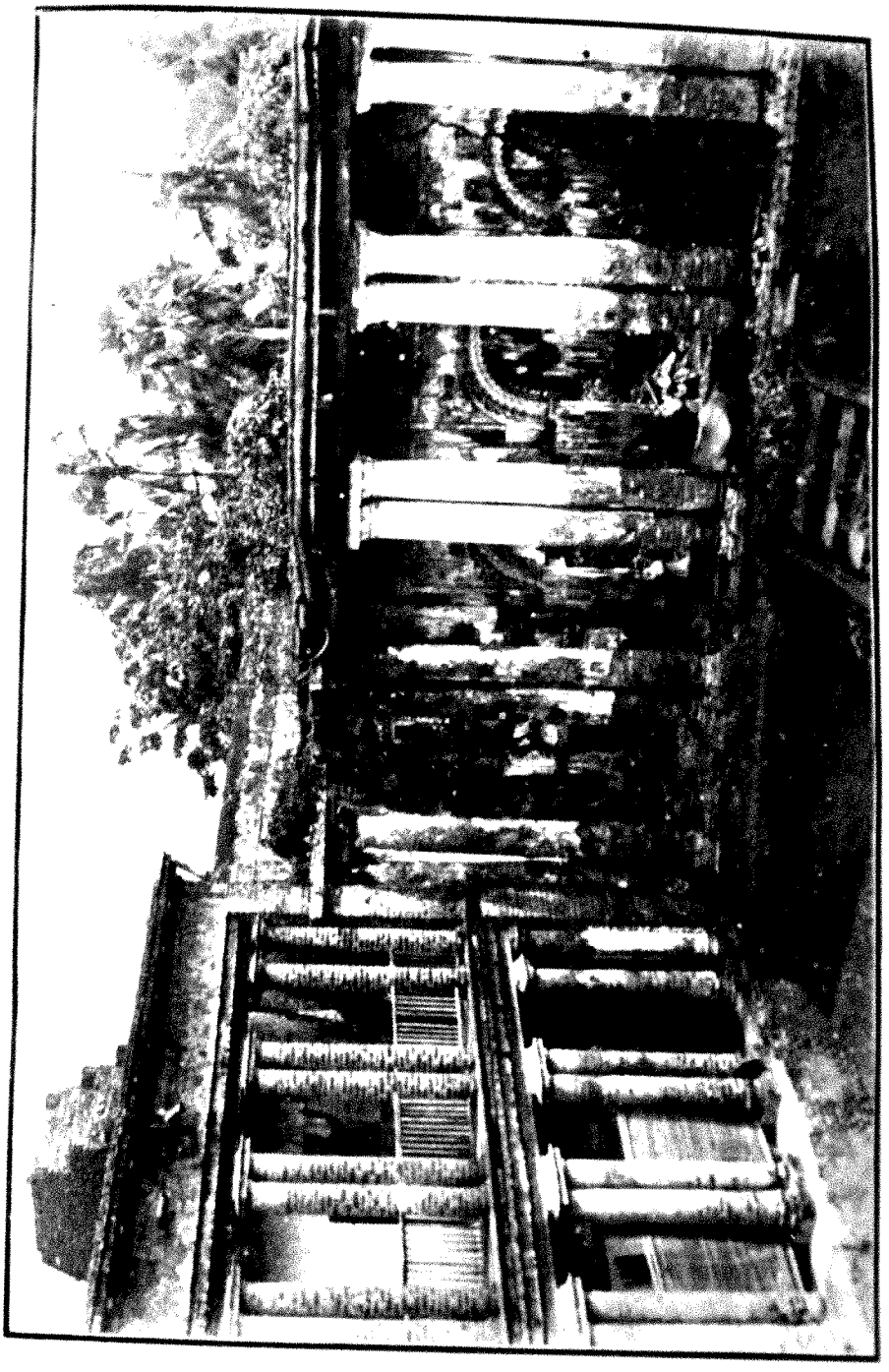
When, therefore, my father opened a loan office on his own account, his co-villagers flocked to him with their saving. to be deposited with him at a fixed rate of interest ; the more so as he had a high reputation for probity. The amount of fluid money in my father's hand was thus considerable. Years after he came to grief over this new venture. My father's total income, all told, amounted to about ten thousand rupees a year ; but on what may today appear to be an insignificant sum, he lived in almost regal splendour. There were several circumstances that contributed to this enviable position.

If a circle be drawn round our ancestral abode as the centre and with a radius of four miles, most of our estates would be found within it. Thus my father lived, moved and had his being in the midst of his own tenantry. The family mansions consisting of a pile of two quadrangles—one for the *Andarmahal* (zenana or inner-apartment) and the other for the *Sadarmahal* (outer quadrangle) and the *Chandimandap* (where Pujas are celebrated) with its double row of pillars, added not a little to the exterior grandeur.

I have already stated that my father's income all told seldom exceeded Rs. 10,000 a year, but it is evident that Rs. 10,000 in those days represented at least Rs. 50,000 or half a lakh of the present times. The economic condition of

Ireland in the middle of the eighteenth century is no doubt fairly reflected in Goldsmith's village pastor "passing rich with forty pounds a year". It will also be thus easily understood why my father could live with the pomp and munificence of the English country squires in the 18th century living in the midst of their tenants. There were half-a-dozen *paiks* and *burkandazs* carrying long, polished bamboo poles and clubs posted at the *Suddurdarwaza*. The Kutchery over which my father presided from eight till noon bore a brisk and lively appearance. On one side sat the *Munshi*, on the other the *Khajanchi* and there were also *Naibs* and *Gomastas* receiving dues from or settling accounts with the ryots and borrowers.

The Kutchery was also a regular court for the administration of justice, which was dispensed in a rough and ready manner, but on the whole to the satisfaction of the parties; as the evidence of the plaintiff and the defendant was taken in open court so to speak and in an *entourage* which had local knowledge of the matter in dispute, any attempt to throw dust in the eyes of the deciding officer by bringing in false witnesses was seldom successful nor was there any such temptation to do so as is found in our modern law-courts. The system was no doubt open to reproach as even in those days there were not many resident zemindars and even these had to be approached often through corrupt and unscrupulous *Naibs* who were not above temptation, whose palms had often to be greased by the adversary or the defendant. The system in vogue had however one commendable feature. Justice (or injustice) was dealt out in a rude and patriarchal but summary and expeditious manner. The matter at any rate ended then and there—it had an aspect of finality. I have elaborated this point in a separate chapter.



OUTER QUADRANGLE AND CHANDIMANDAP.

CHAPTER II

Absentee Landlords—The Deserted Village—Water Famine—Villages Breeding Grounds of Cholera and Malaria

In those days most of the Zemindars were residents in the midst of their tenantry and even if they were sometimes oppressive there was the compensating virtue—they spent most of what they exacted and screwed out in the midst of their own ryots and thus a considerable portion flowed back into the pockets of the latter. Kalidas in his "Raghuvansam" thus pithily puts it:

प्रजानामेव भूत्यर्थं स ताभ्यो बलिमग्रहीत्।
सहस्रगुणमुत्स्रष्टुमादत्ते हि रसं रविः॥

"It was only for the good of the people that he collected taxes from them, just as the sun draws moisture from the earth only to give it back a thousand-fold."

From the middle of the sixties onwards the exodus of the Zemindars to Calcutta slowly commenced and at present most of that well-to-do fraternity are permanent residents of the town. Even in the early thirties of the last century some of the biggest Zemindaries in Rungpur, Dinajpur, Rajshahi, Faridpur, Barisal and Noakhali had passed into the hands of Calcutta magnates. No wonder that James Mill, the historian, in his evidence before the Select Committee of the House of Commons of 1831-32 should observe in reply to the query:

"Are the greater portions of the Zemindars resident upon their Zemindaries?—I believe a very considerable portion of them are non-resident; they are rich natives who live about Calcutta!

Therefore the experiment of creating a landed gentry in India by means of the Zemindary settlement may be considered to have entirely failed?—I so consider it". As Sinha observes:

"Though apparently milder than the old method of realising revenue through imprisonment, the sale laws gave the last blow to the old

CALCUTTA CENTRAL

aristocracy of Bengal. In the course of the twenty-two years following the Permanent Settlement, one-third or rather one-half of the landed property in Bengal was transferred by public sale, mostly to absentee landlords in Calcutta."[1]

The immense harm which this vicious custom has inflicted upon the country can scarcely be over-estimated. In the pre-British days it was the custom, religiously observed, to excavate tanks or to construct bunds and also to build roads. I will have occasion to refer to the miserable condition of the once flourishing reservoirs of water both for drinking and irrigation purposes in Bankura. I shall now give here a brief account of similar beneficent arrangements in lower Bengal. Rani Bhowani, of pious memory, excavated numerous tanks throughout her big estates. In the 16th and 17th centuries those Hindu feudal chiefs of Bengal, who for a time asserted their supremacy and semi-independence even against the great Mogul, excavated tanks of immense dimensions, practically lakes, which even to-day extort our admiration. The early colonizers of the lower delta of Bengal—the Mahommedan Pirs and Gazis —were by no means behindhand in this respect and this is perhaps the main reason why their pious acts are graven on the tablets of the hearts of the Hindus. They not only pay homage to their sacred memories by offers of cakes, etc., but also by holding annual fairs. Speaking of the tank of Raja Sitaram, Westland says:

"Though now 170 years old, it is still the noblest reservoir of water in the district. Its area I would estimate by sight at 450 to 500 yards from north to south, and 150 to 200 yards from east to west; and it contains rarely less than 18 to 20 feet of water. It is the greatest single work that Sitaram has left

1 "At first the Zemindaries were sold not in the districts to which they belonged, but in Calcutta at the office of the Board of Revenue. This gave rise to extensive frauds and intensified the rigours of the measure."

"The sale notification of revenue-paying estates took up the bulk of the issues of the *Calcutta Gazette* of the time and in addition Extraordinary issues had to be printed."—Sinha: *Econ. Ann.*, footnote, p. 272.

behind him,—the only one to which he himself attached his own name Ram." Westland: *Jessore*, p. 29.[2]

The erection of the residential quarters of the old landed aristocracy, sometimes of a palatial character, gave employment to skilled masons and excited the emulation of architects; but partly on account of the decay of old aristocratic families, and chiefly of the absenteeism of their descendants this class is all but extinct; most of the old resident Zemindars again had "Court" musicians but these latter too are fast dying out. The old tanks are nearly all silted up and their beds have become rice fields. Water-famine during six to eight months in the year is now a permanent feature and the muddy pools

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[2] Beveridge in his *Bakerganj* gives an account of similar big tanks. "The digging cost nine lacs of rupees. * * * *

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The tank is no longer full of water, but Kamala's good deed has not been unfruitful, for its bed now yields a rich harvest of rice, and its lofty walls or sides support forty or fifty homesteads, luxuriant in tamarind-trees, gab-fruit trees, and bamboos. It is pleasant to see these homesteads raised high above the surrounding swamps, and to think that their inhabitants owe their comforts to a forgotten Bengali princess. We are reminded of the noble language used by Burke when speaking of the tanks in the Carnatic: 'These are the monuments of real kings, who were the fathers of their people; testators to a posterity which they embraced as their own. These are the grand sepulchres built by ambition, but by the ambition of an insatiable benevolence which, not contented with reigning in the dispensation of happiness during the contracted tenure of human life, had strained, with all the reachings and graspings of a vivacious mind, to extend the domain of their bounty beyond the limits of nature, and to perpetuate themselves through generations of generations, the guardians, the protectors, the nourishers of mankind."—*Ibid.*, pp. 75-76.

* ". . . for Dakhin Shahbazpur and Hattia have many large tanks, which must have been constructed at much expense and labour. They are surrounded by high walls of earth in order to keep out the salt water.—*Ibid.*, p. 22.

". . . the work for which Kamala is famous is the excavation of a large tank at a place not far from Kachua, and near the mouth of the Kalaia river. The tank is now in ruins, but enough remains to show that it was larger than any tank, not excepting Durga Sagur, which has since been dug in the district".—*Ibid.*, p. 74.

he is not found to be as energetic as he ought to be. He follows mechanically the mode of cultivation of his grandfathers, and, as soon as the crop is cut he again idles away his time. He never cares to consider whether this process of cultivation, which he has been mechanically doing, can be improved upon.

IDLENESS AND POVERTY.

The special characteristic of the village is, therefore, idleness. Now idleness naturally brings poverty, quarrelling brings litigation and all other things with it. A man cannot always remain sitting idle. He must be engaged in doing something. An idle brain is the Devil's workshop. They [the villagers) quarrel with one another, set one person against another and try to do harm to persons who are seriously and sincerely trying to do good to them. Thus they waste their time and energy, their money which, if better utilised, could have removed some of the great social and economic evils which are eating into the vitals of village life."

CHAPTER III

Education in Village—Removal to Calcutta—Description of Calcutta Past and Present

To resume the thread of my narrative. My two elder brothers and I received our early education at our father's village school and when my elder brother passed the minor scholarship examination, a different situation was created, which changed the entire course of my father's future career, of which more hereafter. I was educated in that school till I was nine years of age.

In August 1870, I came to Calcutta for the first time. I have a vivid recollection of the impressions produced on my mind. My father took lodgings opposite Jhamapukur Lane and the late Raja Digambar Mitra's house and very near the Brahmo Samaj just then built by Keshab Chandra Sen when he seceded from the Church of Devendranath Tagore (The Adi Brahmo Samaj). Digambar Mitra kept an open table at which his friends were always welcome and my father was almost a constant guest for several years. He used to re-capitulate to us the table-talk of the host as also of Rajendralal Mitra, Hemchandra Kar, Muralidhar Sen and other shining lights of those days.

I spent the month of August in Calcutta, to my great joy, almost every day seeing new sights. I caught glimpses of a new world. A panorama of gorgeous vistas was opened to me. The new water-works had just been completed and the town enjoyed the blessings of a liberal supply of filtered drinking water ; the orthodox Hindu still hesitated to make use of it as being impure ; but the superior quality of the water carried its own recommendation ; by slow degrees, reason and convenience triumphed over prejudice, and its use became almost

universal. The construction of underground drains had just been taken in hand.

If any one were to present to the new generation the picture of the Calcutta of the early seventies, it would scarcely be recognisable. The long row of streets in northern Indian quarter had open drains on both sides in which sewage of abominable stench used to flow. The privies attached to the houses were veritable cess-pools of decomposing night-soil. The arrangement for its removal, which was left to house-holders, was of a most primitive character. The citizens had to submit patiently to a plague of flies and mosquitoes.

The Suez Canal had just been opened ; but there were only a few ocean-going steamers to be seen on the Hugli, the river was then dotted with sailing ships with a forest of masts. The High Court and the new Indian Museum buildings were approaching completion. There was then no Zoological Gardens but the menagerie of Raja Rajendra Mullick of the Marble House was a miniature Zoo and attracted large crowds of visitors. There were then only a few jute-mills on the Hugli—less than half-a-dozen.[1]

The economic conquest of Bengal by the Marwaris had then scarcely begun to be perceptible. It should be noticed that it was not by means of a single pitched battle that this conquest was effected ; on the contrary, it has been achieved by means of a slow, subtle and peaceful penetration.

A century ago Motilal Seal, Ramdulal Dey, Akroor Dutt and others had become millionaires as export and import merchants ; later on Sibkrishna Daw and Prankrishna Law, ancestor of Raja Hrishikesa, did extensive business as importers of hardware and piecegoods respectively. Ram Gopal Ghosh, one of the most brilliant products of the old Hindu College, a pupil of Derozio, who, as an orator and political agitator, was named the *Indian Demosthenes* by a London paper, did

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1 From 1860-70 "we have now got to five mills with about 950 looms at work".—Wallace : *The Romance of Jute*, 2nd ed., p. 26.

not care to seek employment under Government as was the mania of almost all his fellow-students. He commenced his career in the mercantile line and with an English partner opened the firm of Kelsall & Ghosh.[2] His friend and classmate Pearychand Mitra preferred commerce to Government service and traded with America. Moreover from the early days of the British connection, Bengalis were *banians* of European houses, and in that capacity they amassed large fortunes. When I first came to Calcutta traditions of Gorachand Dutt, Ishan Bose and others were fresh in the memory of persons then living. But these early Bengali merchant-princes and *banians* took care to sow the seed of ruin and dissolution of their own descendants or families. The Permanent Settlement has always offered rich temptation to invest money in Zemindaries, which often go a-begging for sale—thanks to the rigidity of the "Sunset Law" and the indolent and extravagant habits of their possessors. The founder of a Zemindary was usually a self-made man of active habits and not generally given to dissipation. But his successors born with silver spoons in their mouths found everything ready at hand and were often surrounded by a swarm of parasites and sycophants. Small wonder that they should go wrong ; they neglected to cultivate their minds and gave themselves up to a life of ease and self-indulgence. The idle brain is the Devil's workshop. When Doctor Johnson was asked what the effect of primogeniture was, he coolly replied "It had the merit of perpetuating but one fool in the family". But the law of inheritance among the Hindus and still more among the Moslems being

[2] "While continuing his studies, in his spare time he [Ghosh] specially directed his attention to the study of the markets and the natural produce of the country. Before he was 20 he wrote a series of articles on the Inland Transit Duties. After gaining experience, first as banian and later as partner in a European firm, he started business on his own account, under the style of R. G. Ghose and Co., established a branch firm at Akyab and another at Rangoon, and became a rich and successful merchant."—Buckland : *Bengal Under the Lieutenant-Governors*, vol. ii, p. 1024.

more equitable leads to the endless partition of ancestral property, and hence any number of fools, idiots and extravagant debauchees are produced.

It was but natural that the descendants of those who were *banians* of European Firms, or who carried on commercial enterprises should be gradually elbowed out from their position of vantage by the hardy, adventurous, patient, toilsome sons of Marwar, Bikanir and Jodhpur. In the early seventies a considerable portion of Burrabazar was already in their grip, but there were still a good few, opulent Bengali families, whose ancestors had dealings with the East India Company.

But the opening of the Suez Canal brought about a revolution in the trade with the East and its effect can be best realised by comparing the table of exports and imports of Calcutta in 1870 with that in 1927-28.[3] London, Liverpool, and Glasgow were brought within easy reach, so to speak, of Bombay and Calcutta and the rapid extension of the railways and connecting inland steamer services side by side co-operated in this direction. Burrabazar including Clive Street is now a bee-hive, swarming with Marwari and Bhatia businessmen and the Bengalis have been, or rather willingly and wantonly allowed themselves to be, completely ousted from the mercantile world. The southern adjunct of Burrabazar which represents the city proper, in that it locates the Royal Exchange, the

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[3] Value of the total imports of merchandise, exclusive of Govt. Stores into the port of Calcutta :

	Rupees		Rupees
1870-71 . .	16,93,98,180	1927-28 . . .	83,59,24,734

Value of the total exports of merchandise exclusive of Govt. Stores from the port of Calcutta :

	Rupees 1870-71		Rupees 1927-28.
Indian merchandise	22,57,82,935	Indian merchandise	137,67,38,779.
Foreign merchandise	19,38,553	Foreign merchandise	70,95,822
Total	22,77,21,488	Total	138,38,34,601

It will thus be seen that the value of imports and exports has increased almost six-fold.

Banks, and the Share Market, is no doubt dominated by the European element, but the Marwaris and Bhatias are active participants in the daily transactions of crores of rupees going on there. The very proprietorship of the land of this quarter as also of Burrabazar with the unearned increment of its value has practically passed out of the hands of the Bengali. Want has driven him to sell his patrimony. A golden opportunity which occurs but rarely in a nation's life was allowed to be snatched away. Bengal has irretrievably lost her chance. Her sons of the old aristocratic families and middle *Bhadralog* classes have become homeless wanderers in the land of their birth, starving or at best eking out a miserable existence as ill-paid quill-drivers.

Now to continue my story. My eldest brother having passed the minor scholarship examination had to come to Calcutta to finish his education. My next elder brother and myself were approaching the M. E. standard. My father had now to face a serious situation. He was very much in advance of the average rural gentry in intellectual attainments and culture and had himself tasted and drunk of the Pierian Spring. He was therefore naturally anxious that his sons should have the benefit of the best education then available. In those days the journey by boat from our village to Calcutta took three to four days, but now the distance has been abridged owing to the combined railway and steamer communication and the journey occupies only 14 hours. There were then no palatial hostels or "attached" messes under University supervision. My father had only two alternatives to choose between. One was to keep a separate establishment in Calcutta under the supervision of a guardian-tutor; the other was that my parents should remove to Calcutta so that we might not be deprived of their personal care and healthy influence. But there were almost insuperable difficulties in the way of the latter plan. My father was by no means a big Zemindar and could not afford to leave the management of his estates to the care and direction of a well-paid and fairly honest agent. His estates

consisted of a cluster of small *taluks* and he had, moreover, embarked on the career of a miniature banker and money-lender in which capacity he had advanced money to several people on mortgage of their landed properties. It was, therefore, incumbent on him that he should be on the spot in order to conduct his own affairs and not be away in distant localities for any length of time. The question what course should be adopted now began to be debated in the family. I well remember that frequent consultations used to be held between my father and mother and it was by no means easy to decide between the conflicting claims. At last it was settled that they should themselves live in Calcutta with their children, since boys of tender age like ourselves could not be expected or relied upon to make arrangements for messing and boarding in a strange and distant town away from the tender care of parents.

My father, however, made no secret of one drawback incidental to his rural life at which he always chafed. He often used to complain bitterly of the society of the village gentry into which he was thrown. They lived in a world entirely different from his. One whose mind had been formed and character moulded on Hafiz and Sadi and some of the master-pieces of English literature—one who had sat at the feet of Ramtanu Lahiri and had already come into contact with the enlightened of the metropolis, could not be expected to enjoy the company of men who were half-a-century behind him in culture and who were steeped to the marrow in orthodoxy and superstition and old-world ideas. One or two incidents may be cited here to illustrate what I am labouring to bring out.

The widow-remarriage movement started by Vidyasagar had caught the imagination of young Bengal and my father was anxious to give a practical proof of his zeal for the cause. One Mohanlal Vidyabagis who was a Pandit in our school and who, though brought up in a *tol*, had thrown away the sacred thread of the Brahmin, was easily persuaded to marry a widow of our village. The news, however, of this projected sacrilege

spread like wildfire and was not long in reaching my grandfather at Jessore. He was an orthodox Hindu and was simply shocked at the enormity of the crime about to be perpetrated. He ran to Raruli post-haste with relays of palanquin bearers and peremptorily forbade the approaching nuptials. My father had to submit to the dictation and the programme fell through. On the occasion of the *Sradh* ceremony of my grandfather many people in the villages round about refused to join it on the score of my father having become a *mlechchha.* It was also given out that a neighbour's calf which was missing had been slaughtered and the veal made into cutlet and other viands and served at the table. Umanath Roy, Zemindar of Satkhira, composed a doggerel which was popular at the time, the first distich of which may be thus interpreted:

Oh my God! what are things coming to,
Raruli like Taki[4] will hasten this land to perdition!

[4] Kalinath Munshi of Taki (dist. 24 Perganas) was a liberal supporter of Ram Mohon Ray in his reform movement and had thus scandalised his orthodox co-villagers.

CHAPTER IV

Education at Calcutta

In December 1870 my parents permanently removed to Calcutta and rented the house No. 132, Amherst Street and we resided here for about ten years.[1] All the early associations of my boyhood are entwined round this dwelling and this quarter of the town known as Champatala. My father got me and my elder brother admitted into the Hare School, then located in the one-storey building facing Bhowanicharan Dutt's Lane and this is now an adjunct of the Chemical Department of the Presidency College.

When my class-mates came to know that I hailed from the district of Jessore, I at once became their laughing-stock and the butt of ridicule. I was nick-named *Bângâl* and various faults of omission and commission ascribed to the unfortunate people of East Bengal began to be laid at my door. A Scotch rustic or a Yorkshire lad with his peculiar brogue and queer manners, when he suddenly found himself in the midst of cockney youngsters, a century ago, was I suppose somewhat in a similar predicament. At that time even the very germs of what is known as the national awakening did not exist, and very few people cared to know that my native district had begotten and sheltered in its bosom two great warriors, who had raised the standard of revolt against the Great Mogul, or his Viceroy, otherwise I could have silenced the idle prattlers at that tender age by reminding them that the scenes of the martial exploits of Raja Protapaditya were almost within a stone's throw of my village ; and that Raja Sitaram Ray's capital Mahmudpur was also located in my own native district ; nor could I drive them into a corner by reminding them that the greatest of the then living poets of the province, the father of blank-verse in our literature, the 'Milton of Bengal' was a grandson of our village ; and that the

[1] This house still bears the above number.

greatest of the then living dramatists, Dinabandhu Mitra, was also born and nurtured in the bosom of the same district.

Here I must pause a while to give an idea of my intellectual equipment previous to my coming to Calcutta. The relations between my father and ourselves (i.e. myself and my brothers) were most frank and cordial. We picked up more information on every conceivable subject by direct conversation with him than through mere book learning. We were allowed the utmost latitude in approaching him and cross-questioning him. I have often found that there is sometimes an impenetrable wall interposed between father and son ; the father is held in terror —a sort of frigid reserve is maintained between the two. The mother or the family friend has to intercede on behalf of the son as a go-between whenever the latter has to approach the former. My father fortunately outdid the sage Chanakya, whose advice is that up till the completion of the 5th year the son should be nursed ; up till the 10th year he should be scolded (for misbehaviour) ; but as soon as he reaches the 16th year he should be treated as a friend. Before my coming to Calcutta—when I was reading in our village school and was barely nine years of age—I had shown a predilection for history and geography. One day I felt curious to test the geographical knowledge of my father and asked him where Sevastapool was. The answer at once silenced me. "What" ! he exclaimed, "You speak of Sevastapool ! I almost see with my own eyes the siege of the city by the English."

On another occasion in drawing attention to the sense of duty and patriotism of an Englishman, he referred to a remarkable incident which our young men would do well to lay to heart. The mutiny had broken out and Sir Colin Campbell (afterwards Lord Clyde) then on furlough was reading newspapers at the Edinburgh Philosophical Institute. He was interrogated by wire from the India Office if he was prepared to go out to India. He at once answered, "Yes". Within a few minutes he was again asked when he would be ready to start. The answer was, "Immediately".

It was again from my father's lips I first learned when almost a child that beef-eating was quite in vogue in ancient India and that the very word for "guest" in Sanskrit is "Goghna" (one in whose honour the fat cow is killed[1]). I also remember having heard from him the names of two books, namely Young's *Night Thoughts* and Bacon's *Novum Organum*, which I confess sounded to me as unmeaning jargon. By a strange coincidence, *Night Thoughts* was one of the prize books awarded to me at the Albert School several years afterwards. Being of an inquisitive turn of mind and studious in habits I used to ransack the shelves of my father's library. Johnson's Dictionary in two quarto volumes, edited by Todd and published in 1816, if my memory serves me right, caught my fancy and the many apt quotations from classical authors were my delight. I used to turn over its pages and commit to memory passages though I could not make out what the abbreviations "Shak", "Beau and Fl" stood for; one day I repeated from memory:

> "Ignorance is the curse of God,
> Knowledge the wing wherewith we fly to Heaven."—*Shak.*

to the agreeable surprise of my eldest brother.

My acquaintance with Shakespeare ripened into close friendship and my appetite for the dramas, especially the tragedies, of the immortal bard grew by what it fed upon even during my boyhood. I vividly recollect some incidents of my school days. At the annual examination for promotion from the lower form to the higher, the Professors of the Presidency College used to be our examiners. Peary Charan Sarkar was our examiner in Geography and Moheschandra Bannerjee in History. These being my favourite subjects I always scored over my class-mates. For two years in succession I got from Bannerjee full marks in the oral examination. Scarcely were the questions put when I answered each of them to his full satisfaction. On

[1] Several articles by Rajendra Lal Mitra have been published in a collected form entitled: *Beef-Eating in Ancient India* (Chuckerbertty, Chatterji & Co.).

one occasion he asked me where I came from. I replied that I hailed from Jessore; the answer evidently satisfied him.

The site now occupied by the Presidency College buildings was then an open maidan (meadow) and it was our playground. In 1872 the accommodation being insufficient for the growing needs, the Hare School was removed to the commodious buildings now occupied by it. The tablet on the wall of one of the class rooms bearing the significant lines in memory of David Hare, composed by D. L. Richardson, deeply moved me and I can even now repeat them word for word.

"Ah! warm philanthropist, faithful friend,
Thy life devoted to one generous end:
To bless the Hindu mind with British lore
And truth's and nature's faded lights restore"!

Girischandra Deb was then the Headmaster of Hare School and Bholanath Pal of the rival Hindu School. These two Institutions, both under Government management, were then regarded as the premier ones in Bengal and there was a keen healthy competition going on between them as to which would secure the highest place in the Calcutta University Entrance (Matriculation) Examination. There were then very few private schools in Calcutta, or for the matter of that in Bengal. James Sutcliffe, as Principal of Presidency College, was the Head of both and he used regularly to visit our school every Saturday. I was always of studious habits but by no means a book-worm. The prescribed text-books never satisfied my craving. I was a voracious devourer of books and, when I was barely 12 years old, I sometimes used to get up at 3 or 4 o'clock in the morning so that I might pore over the contents of a favourite author without disturbance. Afterwards I gave up this habit, as it is prejudicial to health and in the long run does not pay. History and Biography have even now a fascination for me. I read Chambers' *Biography* right through several times. The lives of Newton, Galileo—although at that time I did not understand or realise the value of their contributions—interested me much. Sir Wm. Jones, John Leyden and their linguistic attainments

deeply impressed me as also the life of Franklin. The answer of Jones' mother to his interrogations "Read and you will know" also was not lost upon me. Benjamin Franklin has been my special favourite ever since my boyhood and in 1905 while on my second visit to England I procured a copy of his *Autobiography* which I have read and re-read any number of times. The career of this great Pennsylvanian—how he began his life as an ill-paid compositor and by sheer perseverance and indomitable energy rose to be a leading man in his country—has ever been an object-lesson to me.

Strange as it may appear, from my boyhood I was unconsciously drawn towards the Brahmo Samaj. Various were the circumstances contributing to it. My father, though outwardly conforming to the current Hindu faith, was at heart liberal to the core. The *Tatwa Bodhini Patrika,* the organ of Adi Brahmo Samaj, adorned the shelves of my father's library. The writings and sermons of Debendranath Tagore, Keshab Chandra Sen, Rajnarain Basu, Ayodhyanath Pakrasi, and Akshay Kumar Datta and others imperceptibly prepared the groundwork of my faith. I was not under the influence of any particular dominating personality in the shaping of my religious bias. Revealed religion I have had an innate disbelief in. Selected extracts from the writings of Francis William Newman in the *Tatwabodhini,* as also the correspondence between Frances Power Cobbe and Rajnarain Bose, published in the same journal, appealed to me much ; especially the results of the German school of Biblical criticism as represented by Strauss, whose *Life of Christ the Man,* divested of the accretions of miracles and supernaturalism, which had grown round him, were much welcomed by the early leaders of the Brahmo Somaj. Renan's *Life of Jesus* also must be placed in the same category. In my maturer years Martineau's *Endeavours after the Christian Life* and *Hours of Thought,* Theodore Parker's and Channing's writings have been my favourite companions. Bishop Colenso's *The Pentateuch critically examined* I have not had an opportunity of reading

but I was fully aware of its purport by references in other works. Later on the discrepancy between the Mosaic Chronology and the geological age of this habitable globe of ours further shook my faith in the so-called revelations. Moreover, the caste-system, as it is in vogue in the existing Hindu Society, with its pernicious appendage of untouchability, appeared to me the very negation of the relation existing between man and man. Enforced widowhood, child-marriage and other customs were equally my abomination. My father often used to say that at least one of his sons should marry a widow and he often singled me out for this purpose. It was the social aspect of the Brahmo Samaj that specially appealed to me.

Keshab Chandra Sen, on his return from England in 1871, had started the *Sulava Samachar* (lit. cheap news), a pice weekly, which was brimful of novel ideas, and I was also a regular attendant at his Sunday evening sermons, at his new Church, the Bharatbarsiya Brahmo Samaj, which he founded after the schism with the Adi Brahmo Samaj. The sonorous voice of the silver-tongued preacher is still ringing in my ears. I would never let slip an opportunity of hearing his addresses at the Town Hall and at the open-air meetings or on Saturday afternoons at the Albert Hall.

The year 1874 was an eventful one in my life. I was reading in the 4th class when in August I got a bad attack of dysentery, which proved to be obstinate and my attendance at school had thus to be discontinued. Hitherto I had enjoyed splendid health, sound digestion and a good appetite. From my parents, I had inherited a robust constitution and I was altogether of strong build. But my disease proved to be chronic and although its acute stage disappeared after seven months, I became a permanent valetudinarian and my digestive organs were impaired. I grew weaker day by day and my natural growth during the period of adolescence was thus arrested. I had to submit myself to a strict dietary regimen and discipline.

In one respect however this malady turned out to be a blessing in disguise. I have always noticed that progress made in a class room is of a slow nature—some boys are dull, others mediocre and a very few of superior intellectual endowments. All these are harnessed together as in a team and the actual progress made represents the resultant of these factors. An hour technically represents a period of 45 minutes, the roll-calling function usurps 5 minutes or more. An English residential school like Eton, Rugby or Harrow has no doubt advantages which more than make up for the drawback just pointed out. There the boy learns many things which are invaluable, in that they contribute to the making of character. There he learns lessons which cannot be had from book-lore. There is much force in the well-known dictum of Wellington that the battle of Waterloo was fought on the fields of Eton. Headmasterships of such public schools are often the stepping-stones to bishoprics or masterships of colleges at Oxford and Cambridge. Such schools can boast of an Arnold or at any rate of a Butler.[3] But an average school such as a Bengali boy is blessed with, has no such recommendation ; here he has to con his dull lessons in a language which is not his mother-tongue and it is itself a serious handicap to his progress.

A boy's progress in a school is apt to be slow even if he is far and away the best boy in the class. He is unconsciously liable to be filled with pride and sometimes he grows to be a conceited prig. But after all how much does he learn? Precious little indeed! He often thinks all that he has to master is confined within the narrow limits of prescribed text-books. His world of information is of a circumscribed nature. Moreover, a bright lad has the trick of knowing as much as will do for him. It is by no means the case that a boy who is known as the dux of his class is really the most promising boy,

[3] As delegates of the Calcutta University at the first Congress of the Universities of the Empire, myself and my friend Devaprasad Sarvadhikary were the guests of Dr. Butler, Master of Trinity College, Cambridge.

although an ordinary teacher with his narrow vision may pronounce him to be such.

Lord Byron and our Rabindranath were hopelessly deficient in Mathematics precluding their success at the University. Sir Walter Scott's teacher no doubt foretold his future greatness when he gave out his deliberate opinion: "Dunce he was—dunce he would remain." Edison's teacher sent Edison home with a note saying that he was a hopeless blockhead. To go higher up the educational ladder: the lives of some 150 senior wranglers have been studied and it has been found that most of them were never heard of in their subsequent careers as they simply vegetated as teachers in secondary schools.

Being, however, thus set free from the tyranny of the dull and dreary routine method followed in the schools, I could now indulge in my passion for studies without let or hindrance. My eldest brother, who was now at the Presidency College, added largely to the stock of books already in my father's library. Lethbridge's *Selections from modern English Literature,* which was then used as a text-book for the Matriculation Standard, was my delight and I read it right through several times. The *Selections* did not satisfy my craving, but they served as a stepping stone to my further acquaintance with the classics of English literature. Goldsmith's *Vicar of Wakefield* I read and re-read and the characters portrayed in it were soon familiar figures to me. Squire Thornhill, Mr. Burchell, Olivia, Sophia, Moses and the inimitable ballad—*the Hermit* and the pathetic, contrite lamentation of Olivia beginning with—"when lovely woman stoops to folly" are as fresh in my recollection today as they were more than half a century ago. This is all the more remarkable, seeing that I had had no experience of the family life of an English parson. Years after while in England George Eliot's *Scenes from Clerical Life* equally fascinated me. After all, one touch of nature makes the whole world kin and human nature is much the same irrespective of clime, creed and colour. I also read several essays from the *Spectator* as also Johnson's *Rasselas,*—the first para of the latter beginning with

"Ye, who listen with credulity"—I can even now repeat word for word from memory. Coming into close and intimate contact with the masterpieces, I soon contracted a taste for the rich and copious English literature. Knight's *Half-Hours with the best Authors* also helped me much in this direction. *Julius Cæsar, Merchant of Venice*, and selected portions from *Hamlet*, e.g. the *Soliloquy* opened up a new world to me and I was fired with the ambition of reading as many productions of the great poet as I possibly could in my later life.

It was about this time that the *Bangadarsan*, the periodical, which was destined to usher in a new era in Bengali literature, began to appear as a monthly. Bankim Chandra's *Visabriksha* (poison tree) was then coming out in it serially. Although at this tender age I could not comprehend the intricacies of human foibles delineated with exquisite skill, I followed this masterpiece with intense and breathless interest simply for the sake of the story. The writings of Prafulla Chandra Bannerji on *Valmiki and his age* and of Ramdas Sen on the *Age of Kalidas* etc., helped to give me an antiquarian bent. It should, however, be mentioned here that the articles in the *Vividharta Samgraha* by Rajendralal Mitra on the "Sen Rajas of Bengal" and the like were precursors in this line. Little did I then dream that the taste for antiquarian studies thus acquired, though lying dormant for more than a quarter of a century, would stand me in good stead in writing the *History of Hindu Chemistry*. The *Aryadarsan* under the editorship of Jogendranath Vidyabhusan also followed in the wake of *Bangadarsan* and the translation of the autobiography of John Stuart Mill which was a prominent feature of this monthly periodical made a very deep impression on me. One thing specially struck me. James Mill had taken the precaution of not sending his gifted son to any public school and himself acted as his friend, guide and philosopher. The precocious intellectual attainments of John Stuart Mill are thus easily accounted for. When barely ten years old he had learnt Latin, Greek, besides Arithmetic and histories of England, Spain and Rome.

I was also a regular reader of the three leading weekly newspapers of those days,—the *Somaprakasa* (Bengali) under the able editorship of Dwarkanath Vidyabhusan, maternal uncle of the late Pandit Sivanath Sastri ; the *Amritabazar Patrika* (then a bilingual), whose trenchant criticism and ruthless exposure of official vagaries I relished much ; and last but not least the *Hindu Patriot* edited by the famous Krishnadas Pal. The *Indian Mirror* under the joint editorship of Narendranath Sen and Krishna Behary Sett was then the only English daily on this side of India under purely Indian control, and so great was my eagerness to read it that I used to go to the Albert Hall an hour before the classes began.

Here I must relate an incident which not only gave a colour to but was destined to be a turning point in my future career. One day looking over the shelves of our library, I chanced upon a copy of Smith's *Principia Latina ;* evidently it had been picked up by my eldest brother, who was a book-hunter at a second hand book-shop but was lying unused. On turning over the first few pages, I was filled with an agreeable surprise. At the bottom of the declension of each substantive commencing with e.g. *mensa, mensæ, dominus, domini* and so forth, was given a list of nouns of masculine or feminine gender as the case may be coming under the same category and one or two verbs of unknown (to beginners) conjunction, but with the meaning attached, thus *habet* (he, she, it) has, *occidit* (he killed). The formation of the sentences and their meanings now became clear ; e.g. *aquila alas habet* (the eagle has wings), *dominus hastâ servum occidit* (the lord killed the slave with the spear). Since I had already gone through *Vyakarana Upakramanika* (the first step to Sanskrit grammar) of Iswarchandra Vidyasagar I could not but be struck with the wonderful similarity between the two dead languages. The sentence : *Recuperatâ pace, artes efflorescunt* (peace being restored, the arts flourish) given as an illustration of the ablative absolute, which has its exact counterpart in Sanskrit, simply filled me with wonder. At that early age I could not, of course, be expected to know

all about the remarkable affinity between the two languages derived from the same parent stock as explained in, say, "Grimm's Law," or Bopp's *Comparative Grammar of the Indo-Aryan Languages*. The die was cast. The determination was made and no sooner made than was carried into execution. Here was a golden opportunity of learning Latin without the help of a teacher. I began to con the lessons in the *Principia* with renewed interest and it did not take me long to finish part first of the *Principia*, which in due course was followed by part second of the series as also the companion grammar.

After suffering from dysentery for some seven months, I got rid of it in its acute form but in its milder aspect it has been my life-long companion ever since 1875. I became a victim of indigestion, diarrhœa and later on of insomnia. I had to submit to the most rigid observance of the rules of diet and regimen and for the sake of sharpening my appetite I have always to follow a regular routine of walking in the mornings and evenings and, while living in the countryside, the turning up of sods of earth with the spade in the garden; also swimming and rowing have been my favourite health-giving recreations.

It will now be understood why I characterised my being a prey to an obstinate malady as a blessing in disguise. I have often noticed our young men of robust health boasting of lion's appetite, devouring big quantities of rich viands. Apparently they seem to get on all right for a time. But nature, kind and benign to all who obey her laws, is equally unsparing in exacting her dues from those who frequently violate them. These people, again, full of conceit, neglect the ordinary laws of health with the result that obesity creeps on with the concomitant complaints,—diabetes, rheumatic pains, or gouty joints. Recently I had occasion to go the round of several Zemindar families in Calcutta; although it was ten o'clock in the morning, some of them had not yet left their beds; others again unable to support their heavy corporeal

weight in a sitting posture were lying stretched on the carpet of the floor like so many pythons or boa constrictors. I told them to their face that I would not exchange all their wealth for my simple and active habits. But why blame such people alone? Some of our best men—men of whom the whole of India is proud—have gone to premature graves because of their neglect of the fundamental laws of health. Overwork of the brain, coupled with sedentary habits, cut short the lives of Keshab Chandra Sen, Kristodas Paul, Justice Telang, Vivekananda, Gokhale, and other victims of diabetes. They were carried off between 44 and 46 and even earlier i.e. at a time when an Englishman considers himself almost in the prime vigour of life. This represents a loss to the country which it is impossible to overestimate. Just imagine what the country would have gained if Gokhale had been spared another ten years. The Compulsory Elementary Education Bill which he introduced could not have been given a short shrift by an unsympathetic Government; it would have been by this time on the Statute Book.

Readers of Froude's *Life of Carlyle* will remember that the Scotch philosopher and sage while a student at Edinburgh had to suffer excruciating pain in the stomach and was also a life-long victim of insomnia and yet by strict observance of the laws of health and by taking regular exercises he not only lived to an advanced age but could labour prodigiously in the intellectual field. Herbert Spencer was even a worse sufferer. I might quote several other instances, but I must stop here for fear of being guilty of digression. After having picked up an elementary knowledge of Latin, I found I could easily go through Smith's *French Principia* (parts I & II) without having recourse to anybody's help. French, Italian and Spanish as direct offsprings of Latin, admit of easy mastery by one who is conversant with the parent tongue.

It will thus be noticed that I have special reason to look back to this period of my life with mingled joy and delight. When you learn a new language, you have a new world

revealed to you as it were. But the charms of English Literature had almost a seductive influence on me. K. M. Banerji's *Encyclopædia Bengalensis,* which evidently my father had gone through in his younger days, contained selections from Arnold's *Lectures on Roman History,* Rollin's *Ancient History,* and Gibbon's *Roman Empire,* which deeply impressed me. Several years later the *Meditations* of the Roman Emperor as also Gibbon's masterly portraiture of the illustrious trio, who as if by divine ordination, followed each other in succession—Hadrian, Antoninus Pius and Marcus Aurelius—often soothed my over-wrought brain. Even in my advanced age, after a day's hard toil at the Laboratory, I compose my nerves by stealing to my study so as to indulge in an hour's recreation of reading a few pages of a biography or history preliminary to my evening perambulations on the maidan.

Besides Chamber's *Biography* referred to above Maunder's *Treasury of Biography* was also my delight ; I used to open at random any portion of the latter and go right through it page after page. One day I came across the article on *Ram Mohon Ray* and discovered that it had been borrowed *verbatim* without acknowledgment in the Reader No. IV of the School Book Society's publication, which was the English text-book in the fourth class of the Hare School. It was with feelings of anguish I found that among the thousands of lives in the *Treasury,* only one Bengali name was deemed worthy of a place.

When I had sufficiently recovered from the effects of the attack of dysentery, I thought of going on with the prescribed academic course. With that view I consulted my eldest brother as to the institution in which I should take my admission. My father scarcely troubled himself over such matters and gave me *carte blanche* so to speak in making my choice. He reposed the fullest confidence in me and had ample reason to believe that it was well deserved. Technically I had fallen behind my class-mates at the Hare School as I had stayed away for nearly a couple of years. The session was then also far advanced and for the broken period of the academic year I got myself

entered on the roll of the Albert School in the 3rd class. This institution had lately been founded by Keshab Chandra Sen and his co-workers and naturally it had a great attraction for me. Keshab's younger brother, Krishna Behary, was its Rector (practically Headmaster), but he was away at Jeypur for a short term as Principal of the Maharaja's College. His *locum tenens* was Srinath Dutt, who had lately returned from England after completing a course of studies in London and in the Agricultural College at Cirencester. Here I found myself in congenial atmosphere. The teachers were all members of the Brahmo Samaj ; they had rallied round the banner of Keshab Chandra when he seceded from the Adi Samaj, discarding the caste-system. Our young men of the present day can scarcely form an adequate conception of the social persecution and excommunication which these pioneers of reforms had to undergo. Beloved sons in whom their parents had reposed their fondest hopes had to leave their paternal roof and shift for themselves as best they could. Manfully and cheerfully and without a word of complaint did they submit to their lot. Scarcely had I been a couple of months here, when the presence of the newly-admitted boy began to be whispered about. My teachers discovered to their agreeable surprise that I stood head and shoulders above my class-fellows in every subject taught there and my precocity struck them as remarkable. Whenever there was a question on etymology, I could at once come forward with the radical meaning. For instance, there was the term "nidification" in a passage in a selection from White's *Natural History of Selborne*. From my smattering of Latin I had already noticed the striking affinity between this language and Sanskrit and the many words which can be identified as common to both e.g. :

Nidus = Nidas (Sans.)
Decem = Dasam (Sans.)

I cherished however a secret desire all along to return to Hare School from the beginning of the next academic session ;

it had glorious associations connected with the name of the Founder and had built up traditions round it. The Albert School on the other hand had been recently started on its career and it could not boast of any brilliant alumni, who had shed lustre on it. I did not therefore appear at the annual examination held for the purpose of class-promotion. I was fairly confident that I would win the first prize ; but then it would be unfair to leave the institution which would award it. These were the considerations that swayed my decision. I went home to my native village and enjoyed a much longer vacation and having set myself free from the stress and strain of competitive brain-work, I could indulge to my heart's content my passion for reading as also for agricultural pursuits.

From my childhood I was of a shy disposition and did not much mix with companions of my own age ; but my favourite recreation was reading and arboriculture combined with physical exercise. I have always held that children brought up in towns imbibe all the vices of cockneydom. Nursed in a kind of hot-house and brought up under artificial conditions, they arrogate to themselves the airs of a superior being, heap ridicule on the queer ways, manners and brogue of the country-bred and seldom feel sympathy for village folk. The English poet, who was evidently watching with regret the tendency in his days to despise country-life, pathetically sings,

> Let not ambition mock their useful toil
> Their homely joys, and destiny obscure;
> Nor Grandeur hear with a disdainful smile
> The short and simple annals of the poor.

Now-a-days the shibboleth of life-long dwellers in the town is "back to the village", but this is merely a parrot-cry, which comes with bad grace from people who go into hysterics and are frightened out of their wits if they have to accommodate themselves even for twenty-four hours to the primitive condition of village life. My close contact with the peasantry and masses in general was no doubt the key-note to the alacrity with

which I could throw myself heart and soul into the Famine and Flood Relief Work in 1921 and 1922 respectively.[4]

My migrations to my ancestral home twice every year had a sobering effect on me. These periodical visits to rural spots considerably neutralised the disadvantage of urban upbringing. Even in my old age, I am never happier than when I am in the surroundings of my childhood.

Although I instinctively avoided the society of those who used to frequent my father's drawing-room, I threw off reserve when in the company of the unsophisticated rural folk. I often would visit them in their thatched homes. In those days there were scarcely any grocer's shops in the village. Sago, arrow-root, and sugar-candy which have so largely entered into the dietary of the sick could not be had for love or money and I always took particular pleasure in distributing these and laying my mother's stores under heavy contribution, but she gladly used to second me in my ministrations.

On my return to Calcutta some time about the beginning of January 1876, I asked for a certificate from the authorities of the Albert School stating the standard up to which I had read there so as to enable me to get admission into the corresponding class at the Hare School. But my teachers almost in a body headed by Kali Krishna Bhattacharyya (teacher of Sanskrit who died lately) dissuaded me from this purpose and as Krishna Bihary Sen was about to return from Jeypur to join his own school, I changed my mind. This was another fortunate event in my future career. At the Hare School our relations with the teachers were mechanical. Outside the class-

[4] The complaints made by the so-called depressed classes, some of whom gladly pay subscription towards the expenses of the District Conferences, namely, "that the Babus (i.e. the educated and cultured classes) only come to us when they are in need of money but they never care to look to our interests or to mix with us on terms of equality" are, unfortunately, well-grounded. In fact, it is the haughty aloofness, born of the feelings of caste superiority and culture which has driven a wedge between the classes and the masses. In this respect the Chinese students are an example to us.

rooms we had nothing to do with them ; to all intents and purposes they were strangers to us.

Our senior tutor of the 4th class (Hare School) was Chandi Charan Bannerji. He used to make faces ; his grinning and grimaces were terrible, which spread a shiver among his pupils. He was massive in bulk ; his mustachios looked bushy and also because of his rotund facial contour he had a feline appearance. He was nicknamed *Baghachandi* (Chandi the Tiger). At the Albert School, on the other hand, our teachers were models of gentleness and suavity. Aditya Kumar Chatterji was a personification of all the noble qualities that contribute to the making of an ideal teacher. I see him before my eye with smiles playing on his lips and a benign influence radiating from his countenance. Equally beloved was Mahendranath Dan. Both of them had joined the Brahmo Samaj braving cheerfully social excommunication. Myself and one or two of my fellow students used often to visit them at their lodgings and we had conversations on all manner of subjects without reserve or restraint. The tenets of the Brahmo Samaj were explained to us—how it differed from other forms of faith in that it was not based upon *revelation*, but had to draw more or less on *rationalism* and *intuition* (for the first time in my life I tried to grasp the meaning of the word *intuition*). I unconsciously felt what personal contact with an ideal teacher meant. Long afterwards when I read Tom Brown's *School Days* I was reminded of my old teacher and did not fail to realise why successive generations of pupils should cherish the memory of Arnold of Rugby.

Looking half a century back I recollect with grateful feelings the obligations I am under to my Albert School teachers and the cordial and happy relations in which I stood with them. When the prize-day came I could not of course claim one as I had absented myself from the examination. But the authorities realising the awkwardness of the situation took counsel and awarded me a special prize of general all round proficiency. Next year at the annual class-examination

I stood first and won a basket-load of prize books. Hazlitt's edition of a complete set of Shakespeare's works, Young's *Night Thoughts*, Thackeray's *English Humorists* were among them.

Krishna Behari Sen, on his return from Jeypur, took up his duties as Rector. He was an erudite scholar, well-versed in the English classics. As a public speaker he was a failure and he suffered in comparison with his illustrious brother Keshab Chandra whose oratorial gifts had profundly stirred many a British auditorium. Krishna Behary's *forte* lay in his pen, which he wielded with effect. His style was simple and facile. He was joint editor of the *Indian Mirror*, his colleague being his cousin Narendranath Sen. Krishna Behary was also the sole editor of the Sunday issue of the *Mirror* which was devoted almost exclusively to religious matters. It was in fact an organ of the Brahmo Samaj.

The Albert Hall had just been founded by the exertions of Keshab and his co-workers. The school was located on its ground floor and it also occupied some rooms on the first floor round about the Hall and the reading-room. In the latter were to be found, on the table, leading journals and dailies and I was in the habit of going there an hour before the classes commenced so that I might go through as many of them as I could.

The Russo-Turkish War had broken out at this period and the heroic defence of Plevna by the grave Osman Pasha and that of Kars by Ahmed Mukhtar Pasha was being watched with keen interest by the world, specially by the Asians. I used to follow day by day the fortunes of the war. Needless to say that my sympathy was enlisted entirely on the side of the Turks, who were the only Asian people holding sway in Europe. I well remember that I sometimes had controversies bordering on acrimony with my eldest brother about the moral aspect of the War. He had evidently got his cue from Gladstone, who would have nothing to do with the "unspeak-

able" Turk but would have been glad to see him packed off Europe, "bag and baggage."

My love of English literature grew under the teachings of Krishna Behary. He was not a teacher of the average type, who simply contents himself with paraphrasing certain passages and giving some synonyms of words. His mode of teaching was of a different order ; he could invest the subject with new interest and bring in a wealth of information. One day he told us incidentally that Byron had nicknamed Scott *Apollo's venal son*. This set me on the track of Byron. I had already committed to memory his perfervid appeal to the Greeks to shake off the Turkish yoke. I had read also the celebrated chapter in Ivanhoe describing the trial by combat. I now took up one after the other Byron's and Scott's poetical works from our library shelves. Although my juvenile attempt may be compared to that of "a pigmy rummaging the armoury of a giant", yet I enjoyed heartily Byron's biting sarcasm directed against the Edinburgh Reviewers in his *English Bards and Scotch Reviewers*![5]

I refer at some length to this period of my life and to the taste I acquired for English literature, including history and biography, because within the next two or three years I was called upon to make my choice between literature and science and had to forego the claims of my first love and vow allegiance to a jealous goddess who cannot brook half-hearted devotion in her votary.

In due course I appeared at the Entrance Examination ; my teachers who had built high hopes on me were rather disappointed because my name was not to be found in the list

[5] Let such forego the poet's sacred name,
Who rack their brains for lucre, not for fame :
Still for stern Mammon may they toil in vain!
And sadly gaze on gold they cannot gain.
Such be their meed, such still the just reward
Of prostituted muse and hireling bard!
For this we spurn Apollo's venal son,
And bid a long "good night to Marmion".

of the scholarship-holders. I myself took the matter coolly and have always laughed in my sleeves at the brilliant products of the University, who sparkle for a moment and disappear in the mist—who to-day are but to-morrow are cast into the oven.

A volume can be written on *examination as a test of merit* and during my career as a teacher extending over the last 41 years, it has been my lot to come across scores, nay hundreds of "Scholars" in the competitive list who have failed miserably in later life. Even the holders of the Premchand Roychand Scholarship (the blue ribbon of our university) of the older regime have been nowhere—have sunk into oblivion, unwept, unsung. Of course I shall be told that so and so got a high appointment due to his brilliant academic career. But an accountant-general is at best a glorified clerk. Newton as a master of the mint might have been a success in view of his knowledge of physical science—he might have introduced a reform of the debased coinage. Would Queen Anne have made a right choice if she had offered the portfolio of Finance to the inventor of Calculus? I am afraid as Lord of the Treasury, Newton would have been a hopeless failure. Those who have shone as brilliant luminaries at the Calcutta Bar during the last half-a-century seldom wore feathers in their academic caps. W. C. Bonnerji, Monmohon Ghosh, Taraknath Palit, Satisranjan Das and a host of others have got on splendidly well despite their poor academic qualifications. Anandamohan Bose, the first Indian Wrangler and Premchand Roychand Scholar to boot, was by no means conspicuous by his success at the bar.

It is the steady, lifelong devotion to a subject or cause which counts. Moreover a scholar who is "square" in all subjects generally tops the list in competitive tests. But as Pope rightly observes:—

"One science only will one genius fit."

However I shall not labour this theme further at this stage. My father was now becoming involved in serious pecuniary embarrassments. His estates began to be sold one

after another. From a creditor to a debtor is but one step. It is a source of gratification and pride to me that his debts were debts of honour and he scrupulously paid them off.[6] I well remember the pathetic scene of my mother sobbing and with tears in her eyes, signing away the landed property, which was purchased in her name with the proceeds of the sale of her ornaments and which really belonged to her as *stridhana*.[7] It now became necessary to curtail our household expenses and the first step towards it was to break up the Calcutta establishment. My parents went home and resided there while my brothers and I went into lodgings.

I took my admission into the Metropolitan Institution of Pandit Iswarchandra Vidyasagar, the college department of

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[6] Mr. Akshay Kumar Chatterji has lately drawn my attention to the following reference to one particular transaction evidently from his own pen :—

"Ramratan Chatterji, who was divisional officer (in the Eastern Canal Division) in the district of Khulna, was posted at Surkhali : he made the acquaintance of the Deputy Magistrates of Khulna, namely Bankim Chandra Chatterji, Gourdas Basak, Iswarchandra Mitra and Munsiff Balaram Mallick as also of the Zemindar of Raruli-Katipara, the late Harishchandra Ray, father of Dr. P. C. Ray. In early age his only son Akshay Kumar while at Calcutta for education used to reside in the house of Harishchandra. With the help and advice of Harishchandra Ramratan took *maurasi* lease of a large tract of land in the Sunderbans, which has now turned out to be a profitable transaction. Relying on the honesty of Harishchandra he advanced a large sum to him without any documentary evidence. Harishchandra was the worthy father of a worthy son. . . . . When he felt unable to pay off his debt of honour to Ramratan, he executed a registered deed of sale of a valuable property near his home in favour of Ramratan who however was kept in the dark about the matter till long afterwards. One day when Ramratan met Harishchandra, the latter put the deed into the former's hands and begged to be exempted from cash payment of the debt".—Extracts from *"Vansa-Parichaya"* (annals of families), vol. ii, p. 366.

[7] What constitutes *stridhana* (*lit.* married woman's property) is a topic regarding which Kamalakar says in the *Vivada Tandava*, "the lawyers fight tooth and nail". The curious reader may consult Gooroodas Bannerji's *The Hindu Law of Marriage and Stridhana*, Lect. VII, p. 275.

which had recently been opened. This was the first bold experiment in India of making high education as cheap as secondary education. The fee in the college was the same as in the school, namely rupees three. More than one reason determined my choice of Vidyasagar's college. In the first place the Metropolitan Institution was a national institution and something we could look upon as our own ; in the second place Surendranath Bannerji, who was almost the god of our idolatory, was Professor of English prose literature and Prasanna Kumar Lahiri, a distinguished pupil of Tawney (of the Presidency College, a learned Shakesperean scholar) was Professor of poetry. I took care, however, to attend lectures on Chemistry in the First Arts Course and on both Chemistry and Physics in the Bachelor of Arts Course at the Presidency College as an external student. Chemistry was then a compulsory branch in the F.A. Course. Mr. (afterwards Sir Alexander) Pedler was a first-rate hand in experiments ; his manipulative skill was of a high order. I began almost unconsciously to be attracted to this branch of science.

Not content with merely seeing the experiments performed in the class-room, myself and a fellow student set up a miniature laboratory in the lodgings of the latter and we took delight in reproducing some of them. Once we improvised an oxy-hydrogen blow-pipe out of an ordinary thin tinned sheet of iron with the aid of a tinker. With such crude apparatus the leakage of oxygen into the hydrogen tube could not be prevented and a terrible explosion took place when the mixture was lighted. Fortunately, we escaped unhurt. Although Roscoe's *Elementary Lessons* was the text, I took care to have about me and go through as many works on Chemistry as I could lay my hands on.

My predilection for Chemistry induced me to choose the "B" Course. For the B.A. examination English was then a compulsory subject. Morley's *Burke* and Burke's *Reflections on the French Revolution* were the prose texts among others and Surendranath Banerji's exposition of both was as masterly

as attractive. At this period of my college life I had to suppress my passion for literature as my attention was much distracted by some rival pursuits. I had gained as I have already said a passable acquaintance with Latin and French by my own unaided efforts and Sanskrit I learnt as a matter of course—the first seven cantos of *Raghuvansam* and the first five of *Bhattikavyam* were texts for the F.A., and also in my private capacity with the aid of a Pandit I tasted the beauties of some cantos of another peerless production of Kalidasa, the *Kumarasambhavam*. I had by now begun to cherish the hope of competing for the Gilchrist scholarship examination, the standard for which was the same as that of the London University Matriculation and for which a fair acquaintance with Latin, Greek or Sanskrit, French, or German, was essential. My preparation for this competitive ordeal went on secretly, my eldest brother and a cousin of mine being alone taken into confidence. I was particularly careful in maintaining privacy lest in case of failure I should bring down on me the sneers and ridicules of my fellow-students. By and by the secret however leaked out and a class-fellow, who stood very high in the University examinations, in my hearing taunted me with the remark that my name will appear in a special edition of the London University Calendar. I did not build high hopes of coming out successful and as several months elapsed before the result was out, I gave up all hopes. One day while at the college, and before the lectures had commenced, I was shown a paragraph in the *Statesman* announcing that I was one of the two winners, the other being Bahadurji, a Bombay Parsee. The Principal soon after sent for me and offered me his congratulations and the *Hindu Patriot* then under the editorship of Krishnadas Pal wrote that "I had added a new feather to the cap of the Institution". I could not, however, make out how much my instructions at the particular college had to do with the affair.

My father was then at Jessore negotiating for the sale of the Pattani Taluk Dhopakhola, near Jessore, where there is

now a railway station, to meet the demands of his exacting creditors; he was informed of my intention to proceed to England and readily assented. I also wrote to a cousin of mine at Raruli enclosing the cutting from the *Statesman* in the letter which concluded with these words, which are still engraven on my memory. "Be so good as to convey this news to my mother who, though disconsolate at first, will doubtless be prevailed upon to consent to my temporary exile for four years". I may add here that in those days it was considered quite the fashion among college-educated youngmen to write in English. Now-a-days this would bring derision on the writer, and he would be regarded as a prig or pedant.

My mother did not raise any objection to my going to England. She had imbibed enlightened ideas from my father and did not set much store by the notion prevailing in those days that by undertaking a distant voyage across the seas one lost his caste. I went home to bid her farewell—I was deeply attached to her and the parting scene was exceedingly painful and it was with a heavy heart that I took leave of her. I consoled her by assuring her that if I were successful in life (I am speaking of "success" here in the ordinary accepted sense) my first duty should be to restore the family estates and to repair the ancestral residence, portions of which were fast falling into a dilapidated condition. I confess my outlook of life in those days was circumscribed by the mental horizon of my blurred vision. Providence had, however, ordained otherwise and by and by I learned that there are other and better ways of spending or utilising one's earnings than by investing them in landed properties.

CHAPTER V

Departure for Europe—Educational Career in England—"Essay on India"—Tour in the Highlands

I now began to prepare myself for the voyage and made purchases for the outfit with the help of Devaprasad Sarvadhikary, my former classmate at the Hare School. The change in the mode of life was to be so abrupt that for a time I became almost bewildered. As a preliminary training I began to frequent some cheap restaurants so as to learn the art of dining *à la européenne*. The *Khansamas* (waiters), to whom I paid some tips, gladly gave me hints as to how to use the fork and the knife and how to put the two together almost parallel when a particular course was finished and to keep them at a re-entrant angle when you do not wish your dish to be removed. Soon I came to learn that Dwarka Nath Ray, younger brother of Dr. P. K. Ray, was about to proceed to England for studying medicine and I sought him out and we agreed that we should be fellow-passengers.

We booked our berths for Rs. 400/- each, first class saloon, per S.S. *California*, Anchor Line, Captain Young. As it was the height of the monsoon season and as we sailed directly from Calcutta to London there were only a limited number of passengers. When my friends saw me off and I was on board the steamer I was in good spirits and I remember how I at once entered into a lively conversation with an English passenger. He hinted at my using bombastic terms. I confess, in those days, I was a little fond of the Johnsonian style. Our steamer began its outward journey cautiously under the guidance of the pilot and, when it had proceeded a few miles off Pulta, a peculiar, uneasy sensation began to creep over me. I felt a vomitting tendency ; in fact, the much dreaded sea-sickness

was on me. D. N. Ray who had already learned the European mode of living under his brother's roof was quite at home throughout the voyage and was proof against sea-sickness. His appetite was voracious and he did ample justice to the dishes. Soup, boiled and fried potatoes, and pudding were my main support. The Head Steward taking pity on me used to give me condensed milk and a roll in my cabin when I could not sit at the table on account of sickness.

Our steamer at the end of 5 or 6 days called at Colombo. The sight of land gladdened us and we got on shore and saw the sights. Here we learned, if my memory serves me right, that the Battle of Tel-el-Kebir had been fought and Arabi Pasha taken captive and that the passage through the Suez Canal would not be in danger. I remember a line or two in a Ceylon paper taking Sir William Gregory, ex-Governor of Ceylon, to task for championing Arabi as a leader of Egyptian nationalism "with a chivalrous pertinacity, worthy of a better cause".

From Colombo to Aden was another sore trial to me, the vessel at times rocking violently and appearing at every turn to go underneath the deep. The most remarkable thing was that as soon as the sea became calm the nausea disappeared all at once and I forgot that I ever was the victim of sea-sickness. When the steamer called at Aden, Arab urchins besieged it and began to swim about crying: "Have a dive", "Have a dive"; passengers began to throw small coins into the water and they were readily picked up by the expert divers. We went ashore and found the bazar shops mainly kept by Bombay people.

Our progress through the Red Sea and Suez Canal was quite safe. We learned at Ismalia to our relief that there was no danger of our steamer being the target of sharp-shooters on the shore. When we got on shore at Port Said we found there a mixed population and the Egyptians speaking French freely but there were certain things which quite disgusted us. I have a faint recollection of Malta and our last halt was at Gibraltar. Here grapes were being hawked about—a penny for a

bunch weighing a pound. When we were rounding the cape we were told that the Bay of Biscay was dangerous for navigation. Little did I then dream that another steamer of this line under the same Captain would come to grief several years later (1892) on that very spot and be wrecked with a precious load of passengers including Mrs. Boutflower, wife of the Professor of Muir Central College, and her children ; the the professor, I believe, was a brother-in-law of Mr. Paul Knight of the *Statesman*.

During a voyage, to lounge in a deck-chair and indulge in day-dreams is a favourite way of whiling away time.[1] Some passengers borrowed books from the library attached to the saloon, but these were generally of a frivolous, trashy character. Fortunately, I had provided myself with a stock of books of my own. Smile's *Thrift*, I well remember, was a boon companion ; from my boyhood almost instinctively I was of thrifty habits and the perusal of this book further confirmed them. Spencer's *Introduction to the Study of Sociology* was another

1 In the days of the sailing ships when it was also necessary to double the Cape the voyage often took several months and the dreary tediousness was whiled away in other ways. Macaulay's description may be quoted here :

"There are very few people who do not find a voyage which lasts several months insupportably dull. Anything is welcome which may break that long monotony, a sail, a shark, an albatross, a man overboard. Most passengers find some resource in eating twice as many meals as on land. But the great devices in killing the time are quarrelling and flirting. The facilities for both these exciting pursuits are great. The inmates of the ship are thrown together far more than in any country-seat or boarding house. None can escape from the rest except by imprisoning himself in a cell in which he can hardly turn. All food, all exercise is taken in company. Ceremony is to a great extent banished. It is every day in the power of a mischievous person to inflict innumerable annoyances; it is every day in the power of an amiable person to confer little services. It not seldom happens that serious distress and danger call forth in genuine beauty and deformity heroic virtues and abject vices which, in the ordinary intercourse of good society, might remain during many years unknown even to intimate associates."

work which made a deep impression on me—I have the copy still with me. I had also Kaliprasanna Ghosh's প্রভাত চিন্তা (Morning Thoughts). Rabindranath was then scarcely known. He had been to England a couple of years in advance of me and had published his *Letters from a tourist in Europe* in Bengali which I also provided myself with. A copy of Boswell's *Life of Johnson* in the saloon library almost captivated me.

We reached Gravesend in due course, the voyage occupying 33 days. From thence we went to the Fenchurch Street Station, London, and were received by Jagadish Chandra Bose and Satyaranjan Das, elder brother of Mr. S. R. Das, the late Law Member of the Viceroy's Executive Council. D. N. Ray, and I stayed with them a week or more seeing a good many noteworthy sights including the Tower of London and Madame Tussaud's. The Sinha brothers (the late Col. N. P. Sinha, I.M.S. and the late Lord Sinha) very kindly undertook to be our cicerones.

My imagination had conjured up gorgeous visions of the metropolis of the British Empire on the Thames; the stupendous area it covered simply bewildered me. We put up at Gloucester Road, N.W., near Regent's Park—a quarter free from bustle and the din of vehicular traffic. All the houses in one block in this thoroughfare as also in the adjoining ones are built on the same pattern and look exactly alike. The landlady furnishes you with a latch key, but if you are a newcomer and if you are returning to your lodgings late at night and by mischance forget the number, then woe betide you! If you have to go to a distant part in the city proper you must consult the indispensable *vade-mecum*, the map of London, ascertain the longitude and latitude of the place and then take the right 'bus or the underground railway, otherwise you are apt to lose yourself in the labyrinthian maze. In the early eighties there were no "tubes". Men who have spent the best portion of their lives in London, even those who have been born and bred there, cannot manage without the aid of a map.

Fortunately, the London policeman is always at your service and to a foreigner he is particularly courteous and obliging. He is a master of topography of the locality and has the map in his pocket. Every possible information you require is at his finger's end. "Go up, please, then take the third turn to the left and proceed straight on and then you are at the destination" and so forth. Launcelot Gobbo's description naturally comes to our mind.[2]

Sometimes the 'bobby' will ask you to wait a minute or two till the particular 'bus arrives and then he will direct the driver to see that you get out at the proper stop. In my student days, London had a population of four millions, the same as that of Scotland. During my fourth visit (1920) I learned that the population had increased to seven millions and the area also proportionately. Several of the ports and harbours in the United Kingdom have also made astonishingly gigantic progress, e.g., Liverpool, Glasgow, and Greenock.

I need not pursue further. During my first week's stay in London I had shaken off to a certain extent the nervousness which overtakes one in coming to a strange land and in being placed suddenly in the midst of odd surroundings. I now started for Edinburgh, which had then a time-honoured reputation as a seat of learning. Metaphysics and medicine, especially the latter, attracted pupils from far and near. Physical Science as represented by Chemistry and Physics found also eminent exponents. I was provided with introductions to some of the Indian students of medicine of whom there was even then a small colony. Miss E. A. Manning who used to take much interest in the welfare of Indian students residing in London and other seats of learning also kindly furnished me with introductions to some Edinburgh families.

Edinburgh is four hundred miles due north of London

2 "Turn up on your right hand at the next turning, but at the next turning of all, on your left; marry, at the very next turning, turn of no hand, but turn down indirectly to the Jew's house".

and necessarily a much colder place. My London friends who knew all about the caprices of the climate of the northern city had taken good care to get me a plentiful supply of warm under-clothing and a "New Market" overcoat. One amusing incident in connection with my sartorial experience is vivid in my memory. For my ordinary suit of clothes I was taken to Charles Baker & Co., practical tailors, Tottenham Court Road. For evening parties, dinner and balls etc., I was advised to have a special dress-suit made. I confess I could not reconcile myself to the ugly, hideous-looking tail-coat. It has always been a puzzle to me how the English people so very full of shrewd common sense have not seen their way to discard this barbarous fashion. Equally inexplicable seems to be the obstinacy of their Gallic neighbours. *La belle France*, the cradle of æsthetic culture, the fountain-head of fashion since the days of Louis XIV and earlier, should certainly have done better in this respect. At any rate the English have always appeared to me to be rather stupid in the slavish imitation of modes *à la Parisienne*.

But to resume my narrative. The Indian flowing robe consisting of a *choga* and *chapkan*—such as the illustrious Raja Rammohun Ray wore while in England,—is very suitable to the purpose. I was taken to Charles Keane & Co. (as far as I remember) Oxford Street, with a sample suit borrowed from a friend. They took my measurements and I was asked to give a second fitting. When the dress-suit was ready they sent me information and I called at their shop. When I put it on, it was noticeable that, although there was no misfit, both the *choga* and *chapkan* dangled rather loosely in some places. The "fitter" himself was the first to point out the defect and anticipated the criticism that might be made by saying: "Sir, you are so very thin and lank that it requires lots of padding to make any suit fit you properly". Perhaps some reader will enjoy a hearty laugh at my expense. Possibly I somewhat resembled Ichabod Crane.

A disciple of Epictetus, and admirer of Diogenes in the

tub and of the Gymnosophists of the land of the five waters as described by Arrian and lately of Mahatma Gandhi in his loin-cloth, one whose motto in life has been plain living and high thinking must needs apologise for having to digress on such a trivial subject.

I reached my destination in the second week of October a few days before the commencement of the winter session. Edinburgh is a pretty city and the atmosphere is free from mists or the thick heavy fog which often overhangs London. There being no industries here as at Glasgow the smoke-nuisance is not so oppressive, nor is there such heavy vehicular traffic in the streets. It is surrounded by picturesque scenes and the sea (Firth of Forth) is quite near. I took my lodgings near the meadows and within a few minutes' walk of Arthur's Seat, which was my favourite resort during my holidays. On Sundays I used to take long rural walks to the distant hills and climb their tops: In those days for 12*s*. 6*d*. per week one could get a fairly comfortable furnished sitting room and a bed-room. No extra charge was made for coal, which was piled up in the scuttle and could be burnt in the fire-place *ad libitum*. A substantial penny breakfast was by no means uncommon, consisting of oatmeal porridge ("the halesome porritch, chief of Scotia's food") and milk.

I was singularly fortunate in my landlady. She with her husband and children occupied the back of the flat while the front rooms with windows facing the quiet street were reserved for lodgers. Like other Scotch landladies she was scrupulously honest and never charged me a farthing extra. Her daughter used to darn the socks each time they returned from the laundry.

The Scotch broth with its marvellous nutriment made up of the pith and marrow of bones, oatmeal, and chopped carrot and turnips is simply unrivalled both in quality and cheapness. I well remember an incident in connection with the Scotch broth. I happened to spend one Christmas week on the Border at Berwick-upon-Tweed and I made an excursion to Jedburgh to

see the remains of the old abbeys. I trudged along the pavement covered with snow. After seeing the monuments of piety of a by-gone age, I was on the look out for a restaurant. I was directed to a rather unpretentious house and I entered there with some degree of hesitation. The place was homely and very neat and tidy, and I had a plate of Scotch broth and a big slice of loaf served. This was quite enough for my lunch and only a penny was charged for the meal. In my days there were traditions of the students of the past generation, farmer's sons, walking all the way from their homes or driving in carts to the university and bringing with them a supply of oatmeal, eggs and butter and then getting their stock replenished now and then. Readers of Carlyle's *Life* need not be told how cheaply and economically the student managed at Edinburgh in his college days. The following extract giving a vivid description may prove interesting in view of the rapid transformations which student life has undergone not only in Edinburgh but even in Calcutta during the last half century.

"To English ears university life suggests splendid buildings, luxurious rooms, rich endowments as the reward of successful industry; as students, young men between nineteen and twenty-three with handsome allowances, spending each of them on an average double the largest income which James Carlyle had earned in any year of his life. Universities north of the Tweed had in those days no money prizes to offer, no fellowships and scholarships, nothing at all but an education and a discipline in poverty and self-denial. The lads who went to them were the children, most of them, of parents as poor as Carlyle's father. They knew at what a cost the expense of sending them to college, relatively small as it was, could be afforded; and they went with the fixed purpose of making the very utmost of their time. Five months only of each year they could remain in their classes; for the rest of it they taught pupils themselves, or worked on the farm at home to pay for their own learning".

"Each student, as a rule, was the most promising member of the family to which he belonged, and extraordinary confidence was placed in them. They were sent to Edinburgh, Glasgow, or wherever it might be, when they were mere boys of fourteen. They had no one to look after them either on their journey or when they came to the end. They walked from their homes, being unable to pay coach-hire. They

entered their own names at the college. They found their own humble lodgings, and were left entirely to their own capacity for self-conduct. The carriers brought them oatmeal, potatoes, and salt butter from the home farm, with a few eggs occasionally as a luxury. With their thrifty habits they required no other food. In the return cart their linen went back to their mothers to be washed and mended. Poverty protected them from the temptations to vicious amusements. The formed their economical friendships; they shared their breakfasts and their thoughts, and had their clubs for conversation or discussion. When term was over they walked home in parties, each district having its little knot belonging to it; and known along the roads as University sholars, they were assured of entertainment on the way.

As a training in self-dependence no better education could have been found in these islands".

I have been to Edinburgh and to other Scotch cities several times since then ; but the aspect of city life has undergone material changes. The Highlands are no longer sequestered nooks. Thanks to the halo of romance cast about them by Scott and also to the weird scenery and the railways and motor buses ploughing them, swarms of tourists now flock there including American millionaires. The latter also rent shooting lodges for the season. However, the Scotch are the most industrious and adventurous people on earth. Dundee has practically a monopoly of jute and the mills—some three scores in number on the Hughli—are almost all managed by the canny Scotch. Glasgow bids fair to be second only to London. Within the last fifty years there has been an immense accession of wealth in Scotland. Edinburgh itself has undergone rapid and material transformation. Although not a centre of commerce or industry, retired Anglo-Indians drawing fat pensions and merchants who have made their piles abroad choose to live here.

Beautiful villas have sprung up all round. The new Edinburgh is extending fast. The simple, frugal habits of the people have almost disappeared and they have not been slow to adopt the luxurious habits of the modern sybarites. Burn's admonition has been forgotten :

"And O' may Heaven their simple lives prevent
From luxury's contagion, weak and vile !"

WINTER SESSION IN EDINBURGH 59

At the commencement of the winter session I enrolled myself as *Civis academiæ Edinburgensis* and joined the classes in preparing for the First B.Sc. examination, namely Chemistry, Physics and Zoology ; Botany was reserved for the summer session (May, June and July) since towards the close of autumn "leaves have their time to fall and flowers to fade". In winter the trees are denuded of their leaves and their bare skeletons and frost-beaten twigs are often snow-clad. Tait's exposition of the general properties of matter was illuminating and admirable ; but I confess the text-book suggested for reference—Tait and Thomson's (Kelvin's) *Natural Philosophy* was a bit stiff and a hard nut for me to crack. I attended two courses of his lectures in two consecutive sessions, but it did not take me long to discover that I was born for Chemistry. Even at Calcutta I felt attracted towards her and now I began to pay her assiduous court, not that I neglected other branches.

My teacher of Chemistry, Alexander Crum Brown, was then forty-four years of age. The junior class consisted of 400 to 500 students, almost all of them meant for the medical career. Scotch boys coming fresh from homes full of life and animal spirits, like so many colts, begin with a demonstration of welcome when the Professor enters the class-room ; before he puts in an appearance they generally sing snatches of songs. Crum Brown was a bit fidgety in such a big class and it was not an easy thing to maintain order ; his pupils were not long in discovering his weakness and dramatic or pathetic scenes used to occur now and then. Whenever the former betrayed his nervousness his pupils took advantage of it. They used to rub their boots on the floor or even to stamp upon it or make some such demonstration ; this had the effect of intensifying his fidgetiness. "Oh ! gentlemen, if you go on this way, I can't proceed with my lectures". This appeal had its effect and the students were pacified. Crum Brown was full of *bonhomie ;* there was in him a large dose of *noblesse oblige*—in a word he was a perfect type of a gentleman. His erudition was vast and he was also a linguist. He even learned a

bit of Chinese. His capacious mind could conceive abstruse mathematical problems and he even made some contributions to the physiology of the ear. Along with his colleague (in the department of Materia Medica), Thomas Fraser, he may be reckoned as one of the founders of that branch of Pharmacology which deals with the relation between constitution and the therapeutical properties of drugs. It was, however, in the advanced classes, and notably in any course of special lectures e.g., on Crystallography, that his thorough grasp of the subject and his best acquirements shone forth brilliantly. The emoluments of the Professors in those days were almost princely compared with those of similar occupants of the chairs in the sister British Universities, including Cambridge and Oxford. All the fees (four guineas for the systematic and three guineas for the practical classes) went directly into their pockets.

Crum Brown was now growing indolent and fat. He revelled in speculation and every student of organic chemistry must be grateful to him for the *graphic formula* which he introduced and which considerably helped the progress of our science. Although he took no part in the practical or laboratory work, it must be said to his credit that he took care to secure the services of able demonstrators and assistants—Dr. John Gibson and Dr. Leonard Dobbin, both of whom had rounded off their education in German Universities, were among them. Gibson was at Heidelberg under Bunsen and the manipulations and methods of analysis which he taught us were those of the great German chemist. I got on splendidly and was on terms of personal intimacy with both. Even after a lapse of more than forty seven years I recollect with pleasure the joy and enthusiasm with which I pursued my favourite studies. I learnt German sufficiently well to enable me to go through the literature on the chemical subject. One of my fellow-students was James (Now Sir James) Walker who hailed from Dundee and who succeeded Crum Brown on his retirement. Two other junior contemporaries who made their mark were Alexander Smith, who afterwards became Professor of Chemistry at

Chicago and later at Columbia University and Hugh Marshall well-known for his discovery of cobalt alum and his researches on persulphuric acid. Marshall was cut off in the prime of life (b. 1868 ; d. 1913) and Smith died in 1922 when he was only 57 years of age.

I was going on with my usual studies when an incident occurred which to a certain extent coloured my future career and which therefore demands attention here. Sometime in 1885 Lord Iddesleigh who as Sir Stafford Northcote had been Secretary of State for India in 1867-68,as Lord Rector of the University, announced that a prize would be awarded for the best essay on "India before and after the Mutiny." Although I was busy working in the laboratory and preparing for the B.Sc. examination, I felt tempted to enter the list of competitors. My latent, almost innate love of historical studies now woke up and for a time at any rate got the upper-hand of chemistry. I borrowed a large number of works relating to India from the University library and began to devour their contents and to make copious notes. French works were also laid under contribution, e.g., Rousselet's *"L' Inde des Rajas"*, Lanoye's *"L' Inde contemporaine"* as also articles on India in the *"Revue des deux Mondes"*. I soon found that it was necessary to know a little of political economy in order to be able to follow budget discussions, as also questions involving finance, exchange etc. I therefore took the bold course to go right through Fawcett's *Political Economy* as also his *Essays on Indian Finance*. As member for Hackney, the blind economist had entered Parliament and there made his mark by his thorough grasp of Indian problems and almost in my boyhood I had read in the columns of the *Hindu Patriot* the services he had rendered to our unhappy land and how he had won the hearts of our educated countrymen and also the title *Member for India*. It is enough to say that I went through almost a library of authorities on India. Articles by experts in the *Fortnightly* and *Contemporary Reviews* and *Nineteenth Century* did not escape my notice. I read also details of

Parliamentary debates on certain burning historic problems, e.g., Rendition of Mysore in the *Hansard* (1867).

I was a novice in the art of writing a book, especially of the description now required, but being an Indian I thought the opportunity should not be flung away and having accumulated a vast mass of materials I now made bold to put ink to paper. Brevity is the soul of wit. To be able to compress the essentials —the pith of the matter—within a prescribed limit constitutes the merit of the essayist. Verbosity and prolixity are to be avoided. I divided the subject matter into two parts ; part I again being subdivided into four chapters and part II into three. My thoughts flowed quickly enough and I discovered to my infinite amazement and delight that I could wield the pen with some degree of facility, at least with as much facility as I could handle the test-tube.

In due course I submitted my essay with a motto on the title-page and the name of the writer in a sealed envelope as is the custom in such cases. When the result (or award) was announced I received it with mixed satisfaction. The prize was awarded to a rival competitor, but my essay as well as another's was bracketed together as *proxime accesserunt*.

My hand-writing is bad and in those days typewriting was unknown and I had not kept a copy of my essay. I now applied for its return so that I might publish it at my own cost. The application was readily granted and when I had it back I found the opinion of one of the adjudicators affixed to it. I transcribe a few words from it, which are engraved on the tablet of my memory.

"Another remarkable essay is that bearing the motto..... .....is full of bitter diatribes against British rule". I came to learn afterwards that Sir William Muir and Professor Masson were the adjudicators. Muir was a distinguished Anglo-Indian administrator and rose to be Lieutenant-Governor of the U. P. On his retirement he served for a time as a member of the Secretary of State's Council. On the death of Sir Alexander Grant he was invited to suceed him as Principal of Edinburgh

University. Muir had made his mark in the literary world by his *Life of Mahomet* from original sources, showing profound Arabic scholarship.

In his inaugural address delivered to the students of the University on the opening of the session (1885), Principal Muir referred to my essay along with the other two as "bearing marks of rare excellence". I got it printed for private circulation chiefly among the university students with an appeal addressed to them and subsequently a new edition was published for the general public. I was a believer in those days in the doctrine of mendicancy and with child-like simplicity held that if the wrongs and the grievances under which our country groaned could be brought home to the British people, they would be remedied. The disillusionment was not long in coming. There is not in the history of the world a single instance of a dominant race granting concession to a subject people of its own free will and accord. Even in a free country like England the Barons making common cause with the yeomanry extorted the great Magna Charta from the reluctant hands of King John and in the great Civil War the English people had to wade through pools of blood before they could establish the constitutional principle: *No taxation without representation.* I quote here a few lines from the appeal in the printed edition to the "Students of the University".

"The lamentable condition of India at present is due to England's culpable neglect of, and gross apathy to, the affairs of that Empire. England has hitherto failed—grievously failed—in the discharge of her sacred duties to India. It is to you, the rising generation of Great Britain and Ireland, that we look for the inauguration of a more just, generous and humane policy as to India—a policy which will not seek a justification in such platitudes as "inevitable course", "non-possumus", "eternal fitness of things" ; but one whose sole issue will be a closer union between India and England. In you are centred all our hopes. The time is near at hand when you may be called upon to assume civic functions, and to exercise a potent

influence in the affairs of the Empire over which the sun never sets, and of which we glory in being citizens. Tomorrow you will be arbiters of the destinies of 250 millions of human beings, your own fellow-subjects. We fervently hope your advent to power will be a death-knell to the existing *un*-English regime, and the dawn of a brighter and happier era for India."

I took care to send a copy of my essay to John Bright with a covering letter drawing his attention to the annexation of Burma and the additional cost thrown upon the Indian tax-payer in the shape of increased duty on salt. Bright acknowledged it in a handsome letter with a slip enclosed containing the significant words, "you may make any use of it you please." I at once sent copies of it to the press including the "London Times" and one fine morning I awoke and found myself a bit famous: the posters in thick type announcing "Mr. Bright's letter to an Indian student". Reuter also flashed the substance of the letter to India which is quoted below.

"I regret with you and condemn the course of Lord Dufferin in Burma. It is a renewal of the old system of crime and guilt, which, we had hoped, had been for ever abandoned. There is an ignorance on the part of the public in this country and great selfishness here and in India as to our true interests in India. The departures from morality and true statesmanship will bring about calamity and perhaps ruin, which our children may witness and deplore".

"Now it will not be out of place to quote a few extracts from my *Essay on India* written nearly half a century ago. The essay was printed and published in 1886. I am afraid my penmanship has deteriorated of late years. Fifty years ago my style had evidently an ease and flow which I can now scarcely command. Possibly my being immersed in the labour and toil of chemical research has much to account for it.

* * * *

Extracts from *India*:—

"The part played by England in the furtherance of the intellectual progress of the Indians forms one of the brightest chapters in Anglo-Indian history. While Russia now and then closes the gates of the home universities against her own sons

(*Stepniak*, in the *Times*), England had for more than half a century unhesitatingly prescribed the works of Locke, Burke, Hallam and Macaulay as text-books in the state colleges. The minds of the educated classes have thus been steeped in principles of constitutionalism. Each and every one of them now becomes a focus of political intelligence, from which emanate and radiate principles and doctrines which, we have reason to believe, are gratefully accepted by his less advanced countrymen. The English public has yet to be roused to an adequate sense of the importance of events which are now taking place in India. Thoughts and ideas, which pervade the upper strata of society, are now percolating through the lower ; even the masses are now beginning to be moved and influenced. This latter element it will no longer do to treat as *"une quantité négligeable"*. England unfortunately now refuses to recognise the hard and irresistible logic of facts, and does her best to strangle and smother the nascent aspirations of a rising nationality. The selfish, and therefore, harsh and cruel exigencies of an alien rule have imposed various disqualifications and disabilities upon the children of the soil. From the moment an Indian begins to think for himself, he probably begins to be ashamed of himself. Betwixt the ideal and the actual he sees a gulf intervening ; he finds it difficult to reconcile the practice of British statesmen with their profession. Sound statesmanship consists in forseeing, or at least in reading the signs of the times, and acting accordingly. It has been well remarked that the French Revolution was so mighty in its consequences because it was an intellectual upheaval. Voltaire, an exile from his native land, and dependent for his daily bread upon the smiles of a foreign potentate, thereby wielded more influence than he otherwise would have done ; and what of Rousseau, the genial current of whose soul even chill penury could not freeze? "Banished into Paris garrets" says Carlyle, "in the gloomy company of his thoughts and necessities there ; driven from post to pillar ; fretted, exasperated, till the heart of him went mad, he had grown to feel deeply that the world was not his friend, nor

the world's law..... He could be cooped into garrets, laughed at as a maniac, left to starve like a wild beast in the cage ;—but he could not be hindered from setting the world on fire. The French Revolution found its evangelist in Rousseau". Is there no golden mean between stout and stubborn denial on the one hand and humiliating surrender on the other? These are strange times we live in. An institution seven centuries old becomes in the course of as many days branded as a "nest of sinecurists'. Who knows, tomorrow another Howorth will have to denounce in equally unmeasured terms the India Council and a dozen other obnoxious bureaus? Compromises, and half measures and halting policies have been tried elsewhere with signal failure. "Fifty years of concessions to Ireland" have only served to embitter her feelings against Great Britain. Will the lesson which the sister island has taught us be lost upon India?" * * * * * * * * * * * * *

"We find there is a tendency among a certain class of writers to single out some of the worst types of Mahommedan despots and bigots, and institute a comparison between the India under them and the India of to-day. This is very fair, no doubt ; but will the Mahommedan rule suffer by comparison with ours? It is forgotten that at the time when a Queen of England was flinging into flames and hurling into dungeons those of her own subjects who had the misfortune to differ from her on dogmatic niceties, the great Mogul Akbar had proclaimed the principles of universal toleration, had invited the moulvie, the pandit, the rabbi, and the missionary to his court, and had held philosophical disquisitions with them on the merits of their various religions. It might be said that the case of Akbar is only exceptional, and therefore he cannot be cited as a representative Mogul. Nothing would be a greater mistake than this. Religious toleration, backed by a policy dictated no less by generosity than by prudence, was the rule and not the exception with the Mogul emperors". * * * * *

The *Scotsman,* the leading journal of the North in reviewing the essay observed, "It is a most interesting little

book. It contains information in reference to India which will not be found elsewhere and it is deserving of the utmost notice". My fervour in this direction had, however, to be suppressed. I was soon to appear for the B.Sc. examination, and the superior and more pressing calls of Chemistry could not be subordinated to those of political agitation. Assiduously I took to the pursuit of my favourite science. After taking my bachelor's degree I had to get ready for the doctorate, for which it was necessary to sumbit a thesis based upon my own original investigation. My time was now almost exclusively devoted to research at the laboratory and to serious studies of chemical literature in English, French and German and from 1885 till 1920 Chemistry claimed me almost exclusively as her own.

In the cold, salubrious climate of Edinburgh one can work much harder than in our own without feeling exhausted and after the day's work in the laboratory I always used to take a long brisk walk before returning to my lodgings.

I confess I did not mix much with society ; I was intimate with a few chosen families ; but somehow or other I always got on much better with the elderly male members than with the young ladies. With the former I could enter into conversation on various topics, but whenever in any party I was introduced to the latter, I became shy and nervous and the conversational stock-in-trade consisting of the condition of the weather, the climate or some such thing was soon exhausted and I had to fumble about for a new subject. Some of my Indian friends, however, were experts in the art of mixing with the fair sex. I could never cultivate the art of catching the tone of any society into which chance might throw me. It should not however be understood that I was a misogynist or insensible to the charms of the amiable sex ; in fact, I congratulate myself that I was much luckier in this respect than the great Cavendish—one of the illustrious makers of our science.

Dr. and Mrs. Kelly of *Campo Verde*, Tipperlain Road, used to hold regular receptions on Saturdays for Indian and foreign students and I was on friendly terms with the old couple. I

gratefully remember how, on one occasion, when I was ill and suffering from an attack of diarrhœa, my life-long complaint, they called on me with some especially prepared light, easily digestible but at the same time palatable dishes. I was introduced also to some of the fashionable ("swell") or aristocratic people and on rare occasions I made bold to attend even balls. My Indian costume was very much in request. Once a Moslem friend hailing from Upper India took particular care to array me in his gorgeous robes and turban. Naturally I was "the observed of all observers". Very likely they took me for an Indian prince. I went through some such ordeals as I wanted to have a glimpse of fashionable life.

In due course I presented my thesis and I also had to go through a practical examination consisting of a complete analysis of a complex ore. My examiners were satisfied and I was recommended for the Doctorate. Of course I knew it to be a foregone conclusion. I was the only candidate for the year and was in close touch with my teachers. They knew well the progress I had made and the quality of the research which was going on under their eyes and guidance.

By this time I had become so passionately fond of Chemistry that I made up my mind to protract my stay for at least another year and pursue my studies uninterruptedly to my heart's content. I was awarded the Hope Prize Scholarship and the trustees of the Gilchrist Endowment also gladly made a grant of £50 on the expiry of my scholarship. Doctorates in science in those days were few and far between—not plentiful like black berries as at present. I began to feel that I had got something like a position in social cricles. I was elected a Vice-President of the University Chemical Society and in the absence of the President (Prof. Crum Brown) I had to preside at the meetings.[3] Walker had taken his Doctorate some six months

[3] *Session 1887-88.*
EDINBURGH UNIVERSITY CHEMICAL SOCIETY
OFFICE-BEARERS
President
PROFESSOR A. CRUM BROWN, F.R.S

earlier. He had already imbibed a taste for Physical Chemistry, which was just then coming into vogue. He proceeded to Germany and worked under Ostwald, one of the three pioneers of this branch of Chemistry the other two being Van't Hoff and Arrhenius. On his return he was instrumental in giving an impetus to the pursuit of Physical Chemistry in England. Once I asked Prof. Dittmar of Glasgow, who often used to visit our laboratory,—he being Crum Brown's assistant at one time —as to whether I too should take up Physical Chemistry. His reply was characteristic, "Be a chemical chemist first".

A striking incident may be worth relating here as showing that accidents often play a conspicuous part in the history of

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SYLLABUS 1887-88.

1887.

Nov. 23. Cryohydrates and Eutectic Alloys—Professor A. Crum Brown, M.D., D.Sc., F.R.S.

Dec. 7. The Thermal Conductivity of Metals—A. Crichton Mitchell.

" Criticism of Volhardt's Method of Chlorine Estimation—T. F. Barbour.

Dec. 20. Professor E. J. Mills' Theory of the Genesis of the Elements —W. Peddie, B.Sc., F.R.S.E.

Cobalt Alums—Hugh Marshall, B.Sc.

1888.

Jan. 5. The Chemical Theory of the Formation of Coral Islands—H. R. Mill, D.Sc., F.R.S.E.

William Cullen: A Biographical Sketch—Leonard Dobbin, Ph.D., F.R.S.E., F.I.C.

" 18. The Periodic Law—J. Gibson, Ph.D., F.R.S.E., F.I.C.

science ; but that they can be taken advantage of only by those whose minds are predisposed, as Pasteur very aptly remarks ; *"Dans les champs de l' observation le hasard ne favorise que les esprits preparés"*.

As Hope Prize Scholar it was incumbent on me to assist the Professor in conducting the practical work in the laboratory ; this in itself is considered a privilege as it enables one to take part in actual teaching work. Hugh Marshall was a junior student and I had often to give him hints on methods of analysis. Once I gave him some samples of salt which I had prepared for my doctorate thesis in order to test his analytical skill and also to have confirmations of my own analysis. One such contained the double sulphate of cobalt, copper and potassium (vide *Proc. Roy. Soc.* Edinb. vol. 127, 1888, pp. 267-83). Marshall used the electrolytical method as elaborated by Claisen. Copper was deposited at one pole as was quite expected, but to his infinite amazement he noticed beautiful octahedrals deposited in the solution and analysis proved them to be cobalt alum (oxidation of cobalt salts by electrolysis, *J. C. S.*, 1891, vol. 59, p. 760). One of the products of the re-action was also persulphuric acid.[4] Thus at one bound, young Marshall became famous as a discoverer of a new, but long-expected, compound and left his contemporaries and his seniors far behind.

Feb. 1. The Alkaloids—D. B. Dott, F.R.S.E.
The Heat of Chemical Combination and its Applications,—C. E. Day.

„ 15. Spectroscopic Analysis—J. Gibson, Ph.D., F.R.S.E., F.I.C.
Fractionation as a means of obtaining pure Beryllium Compounds—T. R. Marshall, B.Sc.
Note on the Atomic Weight of Beryllium—A. King.

„ 22. Dissociation—Professor W. Dittmar, LLD., F.R.S.

„ 29. Bodies found in the Urine after the Ingestion of certain Essential Oils—Ralph Stockman, M.D.
Analytical Note—D. B. Dott, F.R.S.E.

Mar. 7. Nitrification—Professor A. P. Aitken, M.A., D.Sc., F.R.S.E.

„ 14. The Carbo-ketonic Ethers of Frankland and Duppa—P. C. Rây, D.Sc.

[4] *Proc. Roy. Soc.* (Edinb.), vol. 123 (1888), pp. 203-4.

DOCTORATE IN INORGANIC CHEMISTRY 71

After taking my doctorate in Inorganic Chemistry I began to make up my deficiency by reading extensively chemical literature on the organic side and taking copious notes thereof and my work in the laboratory also progressed in this line. After the completion of the winter session of 1888 my thoughts were turned homewards. But before I could think of leaving Edinburgh I had made up my mind to indulge a long-cherished desire to see the Highland scenery. I had to live within my comparatively narrow means and could not afford any expense beyond my scholarship of £100 a year. I got only occasional small remittances from home.

During the long summer vacation I used to go to cheap but very romantic sea-side resorts in the Firth of Clyde, to Rothesay and to Lamlash (Arran). P. N. Dutt, who later on, entered the Geological Survey of India, was often my companion in these sea-side trips. We used to pool our resources and club together for the sake of economy and share the same rooms and sometimes the same bed. Compared to the English fashionable sea-side resorts like Brighton, Rothesay and especially Lamlash were remarkably cheap places and the scenery was as picturesque as it was romantic. After breakfast and a spell of morning study, we used to go out for the day on long excursions taking care to have a few sandwiches in our pockets. Drinking water there was never any lack of as the localities abounded in natural springs. My friend also had ample opportunities for geological exploration and often drew my attention to the stratifications in the rocks and to the "faults". These all-day excursions were as enjoyable as health-restoring. Sea-bathing was also an additional luxury. Even now after a lapse of forty-five years my recollection of these pleasure trips brings back an echo of the fervour of those days. From Rothesay there are numerous steamer trips and for a shilling I could go to Inveraray (Duke of Argyle's Castle and seat) and Ayrshire, where there is a monument to Burns.

I now projected a pedestrian tour in the Highlands. I had as a companion a Moslem friend of mine who had taken his

medical degree and who hailed from the Nizam's territories. We first went to Stirling and there put up in a modest farm-house and tramped the country round about, visiting Stirling Castle, the site of the battle field of Bannockburn, and also the Wallace monument. We then passed through the districts described in the Lady of the Lake, a copy of which I had with me and well realised the force of the lines as regards climbing hills:

"Bend against the steepy hill thy breast
And burst like a torrent from the crest."

I enjoyed swimming in Loch Katrine. We spent one night at a hotel at Inversnaid at the head of Loch Lomond. It was during his stay here that Wordsworth wrote his beautiful sonnet addressed "To a Highland Girl". We followed the track of the Caledonian canal and stayed for some days at a neat, little cottage at Fort William. One fine morning we started for Glencoe the scene of the famous tragic massacre and covered at one stretch the whole distance of 18 miles. My friend got thirsty and drank a glass of milk from the stall of a Highland lassie, who refused to accept payment for the same, evidently as a token of hospitality shown to a foreigner. The scenery all round was picturesque and magnificent. We also climbed the top of Ben Nevis, the highest peak in the British Islands (4,400 ft.), where there is an observatory.

We then went to Inverness, a pretty city. I had been told long before that better English was spoken there, among the cultured people than even in London. The broad Scotch with an admixture of Gaelic was almost Greek to the society of London in the days of Jeanie Deans.[5] James I (VI of Scotland) who was fond of displaying his learning and who on account of his pedantry earned from Count Sully the sobriquet

[5] "We must a' die, sir," said Jeanie; "it is our common doom for our father's transgression; but we shouldna hasten ilk other out o' the world, that's what your honour kens better than me". *The Heart of Mid-lothian.*

of "the most learned fool in Christendom" was a butt of ridicule among his refined courtiers.[6] Thanks, however, to the rapid means of communication and the constant intermingling of the southerners with the Highlanders, the diversities in the dialects have practically disappeared. In spite of the heroic and patriotic efforts of Professor John Stuart Blackie, who was instrumental in founding the chair of Gaelic in the University, the language is destined to become as extinct as the proverbial Dodo. Among the educated people I found nowhere any difficulty in following their spoken tongue expect perhaps as regards the broad accent characteristic of the Scotch.

From Inverness we made an excursion to the memorable battle field of Culloden Moor. Slabs of stone have been placed over the remains of the various clans, which rallied round the banner of the unfortunate Prince Charlie on that fateful day and the savagery of "butcher" Cumberland is even now green in the memory of the clan's posterity.

On my return to Edinburgh I saw Crum Brown and Sir Wm. Muir. The former gave me a testimonial speaking in high terms of my chemical attainments and also letters of introduction including one to Lord Playfair, Crum Brown's predecessor in the chair of Chemistry. Sir Wm. Muir also provided me with a letter of introduction to Sir Charles Barnard, who on his retirement from the first Lt. Governorship of Burma, had been appointed a member of the India Council. Barnard was one of nature's gentlemen—genial, kind-hearted and generous. I came to know afterwards that he had on more than one occasion relieved Indian students in England in their pecuniary difficulties. Sir Charles invited me to lunch and undertook to do all that lay in his power to get me appointed to the Educational Service in India. Lord Playfair also wrote on my behalf to Lord Cross, the then Secretary of State for India. But the odds were against me. In those days and even many years later

[6] Admit him instanter, Maxwell. Have you hairboured sae lang at the Court? . . . .—*The Fortunes of Nigel.*

the gates of the higher posts in the Educational Department which were also in the gift of the Indian Secretary were all but closed against the children of the soil. No doubt one or two solitary exceptions were made—but they were exceptions and no more.

Barnard tried his level best to get me in but to no purpose. I stayed two months at Hanwell, a suburb of London and a most pleasant countryside and utilised my time by reading in the library of the Chemical Society and taking copious notes from various works and from German Chemical Journals, which I well knew would not be available in Calcutta.

My prospects of being appointed by the Secretary of State appeared to be remote and I could not afford to stay longer in England as my funds were running low. Sir Charles Barnard had penetration enough to feel the awkwardness of my position and one day took me aside and asked me point-blank: "How long can you hold out?" He also offered me pecuniary help, which I declined with grateful thanks. The scene was, however, a pathetic one. As soon as I left him and was out in the street I almost burst into tears. Realising the hopelessness of my situation I made up my mind to return home. There was fortunately one silver lining in the dark cloud. Principal Charles H. Tawney of the Presidency College, Calcutta, was home on furlough; he was brother-in-law of Sir Charles and was putting up with him. On the eve of my leaving London, Sir Charles invited me to breakfast and introduced me to Tawney, who gave me a letter of introduction to Sir Alfred Croft, Director of Public Instruction, Bengal. Tawney's letter concluded, as far as I remember, with these words, "I am sure Dr. Rây would prove a valuable acquisition to the Department if he could be taken in".

I got ready to start for home. The Gilchrist Trust according to the conditions of my scholarship gave me £50 as passage money. I booked a second-class berth by the P. & O. Mail sailing from Brindisi, for £37, I think. With the balance I made some purchases including a third class railway ticket

from London to Brindisi. As I had hitherto no opportunity of visiting the continent I thought of availing myself of this opportunity of seeing as many places during my railway journey as I could. With this end in view, I journeyed by slow stages in a passenger "omnibus" train. After seeing Paris, I passed through the South of France, crossed the Alpine range and went through several tunnels and vineyards ; our train halted at Pisa for a couple of hours or so and I ran to have a look at the celebrated leaning tower. In the Italian station no drinking water is served, but there is plenty of light, cheap wine and I had often to run to the water pumps to quench my thirst. At Rome also during the short halt I walked in the streets and saw the remains of the Capitol etc.

The Italians are merry, vivacious and communicative and not at all reserved like the English, and my fellow passengers were eager to enter into conversation with me ; with my slight knowledge of French I got on as well as I could. Fortunately for me there was an Austrian among them who could speak English with facility and we became quite friendly. He was bound for Trieste. When he came to know that I was going to catch the mail at Brindisi, he consulted the time-table and gravely shook his head. "I am afraid," he said, "You won't be able to catch the mail as this train will reach the place a day late." He began to feel uneasy about me and at one of the long stoppages he consulted the station master as to how to get me out of the difficulty ; the latter suggested that as the corresponding mail train was shortly expected I should have my third-class ticket converted into the second-class ticket by paying the difference, which amounted to £3 or so and it was just what I could afford to spare leaving a few shillings in my purse.

CHAPTER VI

Returning Home—Professor at Presidency College

I reached Calcutta on the first week of August 1888 after exactly six years' absence. During my stay at Edinburgh my correspondence with my eldest brother, who was a pleader at Diamond Harbour, was limited to a fortnightly post-card. He in turn used to write to our parents at home informing them of its contents. I did not let them know the specified time and the name of the steamer by which I was coming to Calcutta, because I wanted to relieve them of any unnecessary expenses which might be incurred for me as I had all along the vague surmise that my father's financial difficulties must have gone on increasing year after year. I left my luggage in my cabin and as my purse was empty, I borrowed Rs. 8 from the Head Purser. I had many friends in Calcutta and drove to one of them. The first thing that I did was to borrow a *dhoti* and a *chaddar* and change my outlandish mode of dress. After halting a day or two I went home to my native village and for the first time in my life I journeyed by railway from Sealdah (The Calcutta Terminus of the E. B. Ry.) to Khulna. In 1882, the year I left for England, surveys were being made for the proposed railway and I heard that it was to be financed by the Rothschilds. I was no longer a Jessorean, but a Khulnaman. The new district of Khulna had been carved out of a slice of Jessore and another of the 24 Pergannas and Barisal.

When I saw my mother, she burst into tears, weeping that my younger sister was no more to welcome me. Here I must pause to relate an incident which must be taken for what it is worth or as a verification of the adage "coming events cast their shadows before". One morning at Edinburgh just before I woke up I dreamt a dream which was an exact reproduction of

the above scene. It is a pity I did not note down the date as in that case I might have got further proof in support of clairvoyance.[1] After staying a few days at home I hastened back to Calcutta and put up for a time with an intimate friend of mine, the late Amulyacharan Bose, M.B. about whom I shall have occasion to speak later on. I was now anxious to get an appointment in the Bengal Education Department as a Professor of Chemistry and called on Croft and Pedler. I also went to Darjeeling and sought an interview with the Lieutenant Governor, Sir Steuart Bayley for the purpose.

Chemistry was obtaining slow recognition as an important branch of study in our colleges ; but the Presidency College was the only institution where systematic courses of lectures illustrated with experiments were given. Private colleges were few in number and their resources being limited they could not afford to open Science Departments. Students from these colleges were, however, allowed to attend the lectures at the Presidency College on payment of nominal fees. The Indian Association for the Cultivation of Science, founded by Dr. Mahendralal Sircar in 1876, also made arrangements for courses of lectures in Chemistry and Physics and as these were open to the public, Dr. Sircar, I believe, made a representation to the Government requesting it to discontinue allowing students from private colleges to attend lectures at the Presidency College as otherwise the Science Association lecture benches would be more or less empty. This is no reflection on the Science Association but rather on the mentality of the average Indian youth ; unless a subject is prescribed for examination, no one would care to have anything to do with it. The Government also would have been soon compelled to adopt this course on its own initiative as admissions were getting

1 *Cf.* "There, too, he was visited by a strange dream—of the women of Nice bearing his mother to the grave—which, as he declares, came to him on the very day when she died far and off on the other side of the world of waters". Travelyan : *Garibaldi and the Thousand*, pp. 17-18.

larger year to year and B. course (Science) growing to be popular. In the eighties of the last century Chemistry had made gigantic strides and it was realised that the mere delivery of elementary courses of lectures would not be adequate to cope with the requirements and that special arrangements must be made for practical and laboratory teaching. Pedler had on these grounds written to the Director of Public Instruction to move the Bengal Government for the sanction of an additional Professor. It was at this psychological moment that I returned from Edinburgh as an applicant for a post.

The history of admission of Indians in the higher services is a history of good intentions and large promises, but poor performances. If one has the patience to go through the Parliamentary debates on the renewal of the Charters by the East India Company in 1833 and 1853, he will not fail to find noble sentiments, nobly uttered. Macaulay's peroration (1833) is often quoted as a classic on this subject. He had come out to India in 1834 as Law Member and had come into close contact with English-educated Indians, and possibly in London with the illustrious reformer Rammohan Ray and he fully realised what Indian intellect saturated with western literature was capable of. In the fervid peroration of his speech on the renewal of the Charter of the East India Company occurs the memorable passage which is quoted here :

"It may be that the public mind of India may expand under our system till it has outgrown that system; that by good government we may educate our subjects into a capacity for better government; that, having become instructed in European knowledge, they may, in some future age, demand European institutions. Whether such a day will ever come I know not. But never will I attempt to avert or to retard it. Whenever it comes, it will be the proudest day in English history".

As the rich milk deprived of its cream is a poor lacteal substitute, so Macaulay's pious expressions of good-will towards his distant fellow subjelts in filtering through the India Office and the bureaucratic shelves of the not-very-disinterested distant proconsuls ended only in empty verbiage. The poet-Viceroy of India who inherited some of the literary gifts of his father

wrote to the Secretary of State with almost brutal candour. A compromise was effected and the "Statutory" Civil Service was created.[2]

Indians of approved merit and sometimes aristocratic "noodles", were drafted into the Civil Service who would draw two-thirds the pay of the grade. The competitive examination in England was to be thrown open only to Britons (including of course the Irish). These regulations also permeated the Educational Service. Jagadis Chandra Bose, who had returned home three years before me, after a brilliant career at Cambridge and London, and who had to encounter untold hardships in entering the Higher Service in the land of his birth, was only allowed to cross its threshold on condition that he should waive his claim to the full pay of the grade and draw on the two-thirds scale. It was only in rare cases that the children of the soil were admitted to the Higher Service, which made darkness more visible. As a rule Indians of even approved merit could only enter the subordinate branch of the Service. Agitation in India as also in the British Parliament by friends of India against the virtual exclusion of Indians could no longer be ignored. The government of Lord Dufferin under instructions from the Secretary of State appointed the "Public Services Commission" with a view to devise means for finding extended employments for Indians. The recommendations of the Commission were of the nature of a compromise ;

[2] Lord Lytton, Viceroy of India, in writing in a confidential despatch to Lord Salisbury, the Secretary of State for India, assigned among others the following reason for instituting the Statutory Civil Service. "No sooner was the Act (1833) passed than the Government began to devise means for practically evading the fulfilment of it . . . We have had to choose between prohibiting them and cheating them, and we have chosen the least straightforward course . . . . are all so many deliberate and transparent subterfuges for stultifying the Act and reducing it to a dead letter . . I do not hesitate to say both the Government of England and of India appear to me up to the present moment unable to answer satisfactorily the charge of having taken every means in their powers of breaking to the heart the words of promise they had uttered to the ear".

whatever might be done to satisfy the aspirations of the Indians, every care must be taken to safeguard the interests and privileges of the dominant race. Two distinct Services were created —one the *Imperial* and the other the *Provincial*. The former was meant to be reserved for the Britishers and the latter for the Indians; in the former again the average emoluments worked out to nearly double that of the latter.

For about a year, i.e. from August 1888 to the end of June 1889, I was without any occupation and felt uncomfortable. A chemist *minus* his laboratory, as I once told Tawney, is something like Samson shorn of his locks. He is as helpless as powerless. During this period I was mostly under the hospitable roof of Dr. and Mrs. Jagadis Chandra Bose and I spent the time in reading chemical literature and in botanising. I collected and identified several specimens of plants round about Calcutta with the aid of Roxburgh's *Flora Indica* and Hooker's *Genera Plantarum*. At long last an additional chair of Chemistry at the Presidency College was sanctioned and I was posted as temporary assistant Professor on a pay of Rs. 250/- per month. This was the maximum initial salary which the local Government was entitled to offer.

I confess, coming fresh from my six years' stay in England and after breathing the free atmosphere of the land of liberty, I was full of mettle and had imbibed exaggerated notions of the rights of our people. I went straight to Darjeeling and spoke to Croft of the injustice done to me. If a British chemist of my qualifications had to be imported he would at once have been appointed by the Secretary of State to the "Imperial" branch of the service with the grant of passage money. Croft almost got into temper and exclaimed: "There are other walks in life open to you. Nobody compels you to accept this appointment." I pocketed this affront with as good grace as I could. In justice to Croft I must say that the temper he showed was more assumed than real. He was well aware that he was but the limb of the huge relentless machinery of the Government and that it was not for him to reason why

but to obey the mandate. A couple of years later I came to know that he at any rate tried his best to get me into the superior service. Sometime in 1891, a distant relation of mine who was acquainted with a confidential clerk in the Secretariat somewhat officiously put into my hand a slip of paper containing these relevant lines quoted from a report by the head of the Education Department. I reproduce the contents from memory: "On the retirement of Messrs. Brahmo Mohun Mullick and Bellett, two more vacancies will occur (in the Imperial Branch) one of which will have to be given to Dr. Prafulla Chandra Rây of whom Mr. Pedler speaks highly." It will thus be seen that although I was temporarily placed in the "unclassified" list on Rs. 250, it was eventually meant that I should in due course be translated into the higher branch with the sanction of the Secretary of State.

But fate proved not very propitious. Sir Charles Elliott had by this time taken up the reins of administration in Bengal. He found to his dismay that a few more Bengalis after distinguished careers at Cambridge, Oxford and London had entered the Education Department in the "unclassified" list and were knocking at the gates seeking admission in the Imperial Branch. If I were taken into the Higher Service a bad precedent would be created, for with what show of reason could others be denied the same privilege? Steps should therefore be taken to avert the calamity of the Education Department being swamped by the influx of the undesirables. He issued a *ukase* to the effect that pending the sanction of the recommendations of the Public Services Commission by the Secretary of State for India, no fresh admission of Indians into the superior branch should be made.

But the India Office was in no hurry for our sake. Had the interests of the civil or military service, manned almost exclusively by Britishers, been in any way affected, the life of the Secretary of State for India would have been rendered miserable; he would have been bombarded with interpellations in Parliament. Deputation after deputation would have waited

upon him urging immediate redress ; the London *Times* would have scented danger, threatened him with anathemas—witness the recent Lee Commission. It is, however, time I left this chapter in my life and turned to my career at the Presidency College.

I took up my duties at the commencement of the session in July 1889. It was indeed a relief to me. Work, by which I mean laboratory work, had been the main sustenance of my life and I was simply hungering for it. The chemistry department was then located in the one-storied building which accommodated the old Hare School, previous to its translation to the present commodious stately structure in 1872. The space occupied by it will come up to a bare fraction of that occupied by the present department. This again may give an idea of the progress achieved by this branch of science.[3] By a strange coincidence the chair on which I sat in my private room was placed almost exactly on the spot where I sat on the bench in 1870 when I first took my admission into Hare School.

To be a successful teacher, especially of junior students, who are just commencing a course in elementary Chemistry, it is essential that he should have a neat hand in conducting experiments and that these should be so arranged as to make the lectures not only interesting but easily intelligible. An appointment is often made on the strength of academic qualifications ; a candidate may have done admirable research work, but I have often noticed miserable failures from such selections. It should be *sine quâ non* for a lecturer in Chemistry that he should have gone through a probationary stage as a class-assistant. It is a recognised custom with would-be-attorneys and legal practitioners that after securing the necessary academic qualifications, they should be apprenticed as "devils" to a firm or to a professional veteran for a term of years before they are allowed to launch on an independent career. A master or

[3] See : *Fifty years of Chemistry at the Presidency College*, vol. i. 1914, p. 106.

doctor of science who receives his degree on the basis of a thesis may cut a sorry figure when suddenly called upon to lecture to junior pupils. He seldom acquires the manipulative skill of filling an eudiometer with mercury and displacing the latter with, say, two volumes of hydrogen and one volume of oxygen, preliminary to exploding the mixture. He is shy and nervous in regard to such experiments and he often avoids the difficulty by omitting them altogether or contents himself with exhibiting the apparatus on the lecture-table or, in the absence of the latter, drawing diagrams on the black-board. Fortunately for me I found a tradition already built up at the chemical department. Pedler was an expert in gas-analysis and he was almost unrivalled as an experimenter. His manipulative skill was the envy of us all. He had trained under him one or two able hands, notably Mr. Chandrabhusan Bhaduri, who began his career as a class-assistant. My ambition was to qualify myself as a successful lecturer and with this end in view, I put pride into my pocket. England-returned graduates are sometimes found to be a bit stuck-up. They think that they will lose caste or at any rate prestige if they have to learn anything from their subordinates. I am thankful that this sort of weakness was never able to get the better of me. I began my novitiate with the aid of Bhaduri and sometimes of Pedler. I went through repeated rehearsals of class-experiments requiring dexterity. Within a short time I shook off my nervousness and when the next session commenced I found to my delight that I was by no means unequal to the task.

As far as laboratory work and the conducting of practical classes were concerned I was not much in need of guidance as I had a fair amount of experience to my credit ; indeed as I have already hinted, as Hope Prize scholar, it fell to my lot to assist my Professor in this line. My first three months' duty was arduous but enjoyable. I did not trust myself to mere extempore delivery—I often used to write out the substance of my lecture beforehand and it was with relish and zest that I entered into my new sphere. I discovered that I was as much

in my element as a fish in water. Youngmen make almost irretrievable mistakes in the choice of a profession especially in our country. Without bestowing any thought they rush headlong into a particular career and find too late that they have mistaken their vocation and for this tragic consequence guardians are more to blame. Emerson very aptly says somewhere that parents in forcing their attention on over-grown children act more like malefactors than benefactors. It is the case of forcing a round peg into a square hole with the blow of a hammer. After the first three months of the session, i.e. July, August and September, the Puja-holidays intervened and Pedler went home on three months' leave and I was left in entire charge of the department. This was in one sense the busiest period in my educational career—sometimes I had to lecture to three classes in succession, but the work itself was my delight and, as I experienced almost a romantic sensation, I did not break down, nor did my interest flag.

After having acquired some experience as a teacher and a facility in delivering lectures illustrated with experiments, I began gradually to devote my spare time to reasearch work. The adulteration of food-stuffs—a concomitant of modern "civilised life"—was becoming a growing evil. Ghee (clarified butter) and mustard oil are practically the only sources of fat which enter largely into the dietary of the people of Bengal. Articles in the ordinary markets which are sold as ghee and mustard oil are far from being pure. It is however by no means an easy task to detect by chemical analysis the adulterants used and their percentage. I undertook a searching examination of the food-stuffs of this description. I procured samples of these articles from most reliable sources and also had them prepared under my personal supervision. For instance, I had cows and buffaloes milked before my eye and from the milk thereof I prepared butter. I got mustard oil pressed from the seeds as also the various other oils used as adulterants. The composition of butter fat derived from the Indian cows differs somewhat from that of the British cows and hence the

analysis of the latter as published in English works on *Foods* could not be relied upon. The various samples of oils had also to be subjected to a searching investigation. The work undertaken thus involved stupendous labour and I was busy with it for nearly three years and the results obtained were published in the *Journal of the Asiatic Society of Bengal* for 1894, entitled —*Chemical Examination of Certain Indian Foodstuffs ;* Part I —*The Fats and Oils.*

Work in connection with social service has also been my hobby ; as a member of the Brahmo Samaj I threw myself heart and soul into its activities. It fell to my lot to organise the *Brahmobandhu Sabha* and its evening parties, so as to bring together members of our church scattered throughout the town. The Sadharan Brahmo Samaj is founded entirely on a democratic basis and is a commonwealth of the church of God. I was elected a member of its Executive Council and served in that capacity for several years.

In the beginning of the session of 1891 I had a relapse of the former fit of insomnia and I suffered badly for three months in succession. "Care-charmer" sleep was a stranger to my eyes and I had to go through the agony of keeping awake night after night and tossing in my bed now to the right, now to the left. I had to count the hours struck by the distant church-bells—my eyelids refusing to close. The fact that philosophers like Carlyle and Herbert Spencer were victims of insomnia was a poor consolation to me and did not in any way mitigate my sufferings. I used to envy the lot of the day-labourer without any roof to lie under, fast asleep, on the foot-paths of Calcutta. Oh ! what a luxury it was to me to awake after one night's refreshing sleep—tired nature's balmy restorer. I could realise every line of the immortal poet of human nature.'

"How many thousands of my poorest subjects
Are at this hour asleep ! O sleep, O gentle sleep,
Nature's soft nurse, how have I frighted thee,

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And, in the calmest and most stillest night,
With all appliances and means to boot,
Deny it to a King? Then, happy low, lie down!
Uneasy lies the head that wears a crown".

In my humble case my malady was not, of course, due to my "wearing a crown" but to indigestion. During the Puja holidays in October I went for a change to Deoghar, which enjoyed the reputation of a sanatorium within easy reach of Calcutta. In 1891 the place was not much frequented by holiday seekers and there were few residential quarters and these were scattered about at long distances from one another. Open spaces were plentiful. A friend of mine secured for me a thatched cottage, sadly needing repairs, which had once been occupied by a gardener. I was simply delighted with my quarters, the more so as it was in the midst of a semi-cultivated field and thus open all round. The most conspicuous figure at Deoghar was Rajnarain Bose ; thousands of Hindu pilgrims pass through this place on their way to Baidyanath, barely a mile's distance, where there is the temple dedicated to the God Siva. But Deoghar was no less a place of pilgrimage to scores of educated Bengalis, who used to come here to enjoy the company of the venerable sage. He had suffered from many domestic afflictions and was bent double with age but his conversations were an intellectual treat and they sparkled with flashes of wit.

Our friend Herambachandra Maitra soon joined us. Jogendranath Bose, Head Master, Deoghar School, was another figure. He was then collecting materials for the Biography of Madhusudan Datta which was to earn for him an assured place in Bengali literature as it is unique of its kind. The letters exchanged between Rajnarain and Madhusudan, which the former placed unreservedly at the disposal of Bose form the most valuable portion of the Biography. Sisir Kumar Ghose was also living here in his own bungalow. He had practically retired from the editorial labours of the *Patrika*. I thus enjoyed good company and used to make excursions to the surrounding hillocks. Jogendranath Bose often read out to me selected

portions from his Mss. An incident—half tragic and half comic —may be related here. The place abounded with Bhela (*Sempervinus Anacardium*) trees. One day I picked up a fruit (the Indian marking nut) and thoughtlessly chewed it. As it belongs to the natural order *Anacardiaceæ* i.e. the order to which the mango belongs, I thought it harmless. Nothing happened just then. Next morning my face was swollen to large dimensions, so much so that even the eyes were not discernible. My friends got frightened. The local physician applied belladona extract and I was soon all right. I should have remembered that the same natural order often includes both innocuous and poisonous articles. Thus potato, brinjal, red-pepper, the deadly nightshade (atropa belladona) belong to the same order, namely Solanaceæ.

On the expiry of the Puja holidays I returned to town. A year before I had rented 91, Upper Circular Road, which was to be my residence for the next quarter of a century. It was also here that the foundation was laid of the Bengal Chemical and Pharmaceutical Works. Shortly after I began my duties at the Presidency College, my mind was much troubled over the poverty of Bengali literature on the scientific side and I seriously entertained the idea of writing a series of *Primers* on Chemistry, Botany and Zoology. I naturally took up Chemistry first and had actually made some progress with my manuscript when I gave up the task. Nature-study seems to offer better attractions to the juvenile minds and the animal and the vegetable kingdoms afford almost unlimited scope in this direction. Stories of animals, their habits, peculiarities, their distribution fascinate the imagination of the young. There are numerous books in English even on a single species—say the anthropoid apes: e.g. the gorilla, the chimpanzee, orang-outang, and these are based more or less on first-hand information. The fertilisation of the orchids again strikes one with wonder and admiration at the ingenuity of nature. The metamorphosis of insects is itself a romance in animal life of surprising interest. Here at any rate facts beat fiction. Bengal is rich in fauna and flora.

Vegetation grows here in rank luxuriance. Nature in the inclement season in England is bleak, barren and often snow-clad ; whereas in Bengal, even in the depth of winter, nature in all her glory is arrayed in gorgeous habiliments.

Just imagine for a moment what costly arrangements have to be made in cold regions for securing living specimens of trees and plants of the tropical climes—palm houses and conservatories have to be constructed for nursing them. One has only to pay a visit to the Kew gardens to realise it ; whereas in Bengal bounteous nature scatters her gifts broadcast and in profusion. If you leave out Calcutta, the whole of Bengal is practically rural and those who live in this town have only to cross the bridge at Maniktola or ferry over to the Botanical Gardens to procure as many specimens of plants as they like. The rivers again are studded with innumerable genera and species of fish and the forests and jungles with diversified animals. The whole of Bengal is Nature's laboratory. One of the main objects of teaching elementary science to children and boys of tender age is to bring out their latent powers of observation and the lessons conveyed through the life-history of a plant or of an animal are admirably calculated to serve this purpose. In what manner does a cat differ from a dog, as far as outward looks go? Go a little deeper and examine the claws, the arrangement of the rows of teeth of a cat as also of a dog. Go still deeper and examine the habits and charactertistics especially the contours of the faces of these two representatives of the *canidæ* and *felidæ* and the retractile claws of the latter and the fleshy pads under their paws and the purpose they subserve. The dog, on the other hand, has no retractile claws ; his face is pointed and so on. Can even a "domestic" cat be trusted in a kitchen containing in its cupboard rich cream or fried fish or roast mutton? Further gradual developments may be made in this direction—the carnivorous beasts of the cat and dog families living in the the wilds and jungles and their geographical distribution. In short, stories of animals, as I said above, are admirably calculated

to capture the imagination of children and a Natural History profusely illustrated is to them a book of romance.

With this end in view I wrote a *Primer of Zoology* in Bengali ; my knowledge of this science which I gathered during the preparation for the B.Sc. course now stood me in good stead but I had to supplement it considerably. I read a good many standard works on the subject and frequented the Zoological Gardens, in order to observe the habits of animals and often visited the Natural History Section of the Indian Museum. I dissected also a few specimens with the help of my friends Nilratan Sarkar and Prankrishna Acharyya, who had then just taken their medical degrees. I remember one early morning, as I was taking my constitutional walk, I saw a dead body of a *bham*, the Indian Palm Civet (*Paradoxurus Niger*), lying on the road side. It had evidently been killed in the small hours of the morning for its nocturnal predatory incursions into a household in that outlying part of the town. I caught hold of this zoological specimen and triumphantly carried it home and at once extended an invitation to my above medical friends to come over and join me in its dissection. We also started a Nature Club of which, besides the above, Mr. Ramabrahma Sanyal, Superintendent, Zoological Gardens, Principal Herambachandra Maitra and Dr. Bepin Behary Sarkar were members and we used to have regular meetings once a month. When I went home during the summer vacation I had some cobras caught and examined their poison fangs and studied the mechanism of snake-bite with the aid of Fayrer's *Thanatophidia*.

About this time (1891-92) another matter began seriously to occupy my thoughts. Our educated young men, the moment they came out of their colleges, were on the look-out for a situation or a soft job under the Government as now, or failing that in a European mercantile firm. The professions —law and medicine—were becoming overcrowded. A few came out of the Engineering College, but they too were helpless seekers after jobs.

Meanwhile, the adventurous non-Bengalis, notably the Marwaris from the barren deserts of Rajputana, were swarming not only in Calcutta but also in the interior of Bengal and capturing all key-points of the export and import business. In a word, the Bengalis were being worsted in the keen competition and ousted from and elbowed out of the fields actually in their possession. The college-educated Bengali youth could reproduce from memory notable passages from Shakespeare and Milton and quote *ad nauseam* Mill and Spencer and all the same would hopelessly fail in the struggle for life. Starvation stared him in the face, and yet secondary schools were multiplying and new colleges were springing up mushroom like. What to do with all these young men? The Science Course was becoming more popular day by day but the underlying vague idea of the youths or their guardians was that by learning Chemistry and Physics in preference to Logic, Metaphysics and Sanskrit, they would be able somehow or other to start industries or at any rate to earn their livelihood without hankering after services. But this had proved to be a delusion. In the nineties of the last century those students who took Chemistry in preparing for the M.A. degree (M.Sc. had not then been instituted) usually attended law lectures. What correlation exists between Chemistry and Law was the question I often used to put to them. The answer was that they fought shy of cramming the contents of a cart-load of books for the arts course and in choosing Chemistry they would have to read much less and they did not mind going through the drudgery of the laboratory work; some no doubt confessed to a liking for Chemistry. One specific instance, which is almost typical, will suffice; I once asked a candidate for the M.A. in Chemistry who had practised law for some time, being a B.L. (Bachelor-of-Law) as to why he left the court? The answer was ready and characteristic "Sir, if I can have the M.A. degree, then I shall have the letters M.A., B.L. suffixed to

my name and my claims to Munsiffship will be stronger thereby". "Oh Chemistry! to what purpose you are being diverted", was the exclamation wrung out of me in the anguish of my heart.

CHAPTER VII

Bengal Chemical and Pharmaceutical Works—Its Origin.

In Europe industry and scientific pursuits have gone hand in hand, both have advanced *pari passu*, the one helping the other—in fact, industry has, as a rule, preceded science, though based upon empirical knowledge. Soap-making, glass-making, dyeing with purple, scarlet and mineral pigments, nay, metallurgical operations, have been known for the last 2,000 years or more, long before the chemical reactions involved in them were understood. No doubt science comes in as a ready handmaid to industry. The history of the gigantic progress of industry achieved in Europe and America is a history of the triumph of researches in the laboratory. In Bengal the one thing needful was not so much the establishment of Technological Institutes as the initiative, the dash, the pluck, the resourcefulness in our youths that go to the making of a businessman or an entrepreneur or a captain of industry. The college-bred youth has been found to be a hopeless failure ; there is no driving power in him ; at best he can only shine as a tool or an automaton.

These thoughts were weighing heavy on me at the very threshold of my career at the Presidency College. How to utilise the thousand and one raw products which Nature in her bounty has scattered broadcast in Bengal? How to bring bread to the mouths of the ill-fed, famished young men of the middle classes? With this end in view I experimented with lemon juice and tried to extract citric acid out of it. In the Calcutta market, however, lemons or citrons could not be procured at a cheap rate or in sufficient quantity to make the product commercially paying. I now turned my attention to such articles as could be

manufactured on a small scale and would find a ready sale in the market. The business had to be one which would not involve the outlay of a big capital and which must not interfere with my other pressing duties. After several preliminary attempts, pharmaceutical preparations as the most suitable ones for my purpose were hit upon. I began a thorough examination of the Calcutta drug stores and made inquiries of the importers as to the quantities in which the British Pharmacopœia medicines were imported. The firm of Butto Kristo Paul & Co. were then (as perhaps now) the premier druggists and did an extensive business in this line. The late Bhutnath Paul, the life and soul of this concern, assured me that there would be no lack of purchasers provided the right sort of things was made. I was a chemist pure and simple, but not a "chemist and druggist".[1]

While at Edinburgh, as members of the University Chemical Society, we used to make excursions to various chemical works e.g., Pullar's Dye-works, Perth, Mac Ewen's Brewery, Edinburgh, Distillation of Shales, Burntisland. But we were invariably refused admission into the pharmaceutical works, lest any trade secret should leak out. Such jealousy at the first blush may appear to be reprehensible, but it is none the less pardonable. Such firms have to spend a mint of money and years of labour before they can hope to work out a process which would give them a decided advantage over their rivals. Hence the impressions I gathered therefrom were not of any practical use to me. In England and Scotland Chemical Works are conducted on an extensive scale, there are sister industries side by side, the one dependent or deriving nourishment from the other. I had read in my text books

[1] This distinction is even now a subject of bitter controversy. Under date 26th November, 1837, Liebig tells the Swedish chemist (Berzelius) that "he had been some months in England, had seen a vast amount, and learnt little. England, he says, is not the land of science; her chemists were ashamed to call themselves chemists because the apothecaries had appropriated the name".

that sulphuric acid is the mother of all other industries. A visit to the mammoth sulphuric acid works of Tennant & Co., St. Rollox, Glasgow, convinced me of its significance.

When I began my preliminary trials, I had no previous experience in this line to guide my path nor any tradition to follow,—no mariner's compass to help me to steer my course. More than one third of a century has elapsed since then. The export and import trade figures show marvellous progress, but during this time very little has been effected in the chemical industry. I began with "copperas" (sulphate of iron) for which there is a demand in the Calcutta market. Scrap iron was obtainable in any quantity almost for nothing and I instituted inquiries about sulphuric acid. When I used to make chemical experiments in my early college days, I had occasion to procure sulphuric acid for this purpose from a local druggist and was even then inquisitive enough to ask of him the source of supply of this "mother of industries" and I learned that the mineral acids were no longer imported from abroad as D. Waldie & Co. of Cossipore (a suburb of Calcutta) had begun to manufacture them on a large scale.[2] I now

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[2] I cull below all the available information on David Waldie: "In memory of David Waldie. Born in Linlithgow, Scotland, Feb. 27th 1813, David Waldie was associated with the discovery in 1847 of the anaesthetic properties of chloroform. Arriving in Calcutta in 1853, he became the pioneer of chemical manufacture in India. He was an active member of this Asiatic Society for 25 years and served on the Council for 10 years. Died in Calcutta, June 23rd, 1889. MURAL TABLET (Erected by Messrs. D. Waldie & Co., 1913).

"Dr. D. Waldie was elected an Ordinary Member in November 1865, and at the time of his death was a member of our Council. He had a considerable share in the discovery of the use of chloroform as an anaesthetic, and was a sound chemist. He contributed several papers to our Journal and Proceedings, chiefly connected with the effective filtration of the Calcutta Water Supply. (*Proc. As. Soc. Beng.*, 1890, p. 42).

"Mention may appropriately be here recorded of David Waldie, founder of the chemical firm of David Waldie and Co., who established his first chemical works in the early part of last century at Alum Bazar, an adjacent village. . . . It is not generally known that

came to know that besides Waldie's there were three or four other sulphuric acid factories round about Calcutta owned by Kartic Chandra Singh, Madhabchandra Datta and others and I inspected them one after the other. The output of these latter factories would excite pity or derision among those who are accustomed to compare the statistics of consumption of sulphuric acid in Europe or America. On an average each of these manufactured no more than 10 cwts. per day. From the sulphuric acid again the other two important mineral acids, namely, nitric and hydrochloric, were made, these being distilled in *kalsis* (country-made earthenware jars). The primitive and wasteful methods of manufacture made me almost sick—they were paying simply because mineral acids being dangerous articles could only be imported as deck cargoes and the transport charges were almost prohibitive. The few jars of sulphuric acid I required were supplied by Waldie & Co., but a strange unforeseen occurrence imparted a fresh stimulus to my activities.

One Yadava Chandra Mitra, a co-villager of mine, had an extensive practice as a mukhtear (lower grade Attorney-at-Law) at the Alipore Criminal Court. He had been persuaded to buy a small sulphuric acid works of the description given above, designed, constructed and managed as a going concern by one Asgar Mondol. It was located at Sodepur some three miles south of Tollygunge in the midst of clumps of bamboo. Mitra invited me to visit his "Works" and hinted that my chemical knowledge might be turned to good account in improving the method of manufacture. I took care to be accompanied by the late Chandrabhusan Bhaduri, our demons-

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David Waldie practised research in anaesthetics in his laboratory at Alum Bazar in the direction of chloroform at the same time as Professor Simpson of Edinburgh. The two exchanged correspondence on the subject, and a brother of Waldie's at home meditated a claim for his brother to a share of the credit in the ultimate discovery; but David was averse to pursue the matter". D. R. Wallace : *The Romance of Jute*, pp. 16-17.

trator, who was of a mechanical turn of mind and who had an instinctive insight into problems involving chemical engineering. The late Kulabhusan Bhaduri, younger brother of Chandrabhusan, who was a gold medallist and M.A. in Chemistry, was also one of the party.

Though I am writing my impressions after an interval of thirty-seven years, the excursion we made direct from the college on a Saturday afternoon comes vividly to mind. The acid factory consisted of only two small lead chambers—10 ft. by 10 ft. by 7 ft.—each without any arrangement for condensing nitrous fumes. It goes without saying that such a thing would not admit of the installation of a Glover's and a Gay-Lussac's tower, nor had the illiterate constructor any idea of such improvements. We made a close inspection of the "Works" and began to think of improving upon the crude method followed. My visits to this and the other local small acid works produced a deep impression on me. I was even stung with reproach and remorse, if I may so describe it. If one studies the history of the progress of technical arts and scientific inventions in Europe he will find solitary individuals working at a disadvantage and labouring under immense initial difficulties giving to the world the results of their indefatigable zeal and devotion, which have revolutionised the industrial world. They were almost invariably innocent of high class education. A Le-Blanc dies in poverty in a hospital in a foreign land and yet founds the modern alkali manufacture —James Watt, Stephenson, Arkwright, Hargreaves, Bernard Palissy and others were all of humble origin and yet, struggling against odds and surmounting almost insuperable obstacles, at last came out victorious. As we find from Smiles' *Lives of Engineers,* very few of them came of well-to-do families ; most of them sprang from the ranks. John Metcalfe the road-maker, the son of a poor working man was struck blind when only six years old. Telford, the builder of the Menai Bridge, became an orphan when barely one year old and his widowed

mother "had a long and hard struggle with the world before her."[3]

I next experimented upon *sajimati* (the natron or trona of Egypt), which had been in use in Upper India from time immemorial as washing soda and tried to prepare from it fine carbonate of soda. I found, however, that it did not pay, as much purer and cheaper soda was already in the market, manufactured by Brunner Mond & Co., and soon I came to learn from the *Chemist and Druggist* that this firm had even then practically monopolised the market of the whole of Asia including China and Japan.

Phosphate of soda and "super phosphate of lime" now claimed my attention. Why should these articles be imported, when, at the same time, the important raw-material, the bones of cattle, are exported in extensive quantities? For my immediate purpose I required barely 10 to 15 maunds of bone-ash. I discovered that the raw bones were regularly carted away by contractors from several butchers' stalls within almost

3 One would scarcely have expected to find the birth-place of the builder of the Menai Bridge and other great national works in so obscure a corner of the kingdom. Possibly it may already have struck the reader with surprise, that not only were all the early engineers self-taught in their profession, but they were brought up mostly in remote country places far from the active life of great towns and cities. But genius is of no locality, and springs alike from the farm-house, the peasant's hut, or the herd's shieling. Strange, indeed, it is that the men who have built our bridges, docks, lighthouses, canals, and railways, should nearly all have been country-bred boys: Edwards and Brindley, the sons of small farmers; Smeaton, brought up in his father's country house at Austhorpe; Rennie, the son of a farmer and free-holder; and Stephenson, reared in a colliery village, an engine-tenter's son. But Telford, even more than any of these, was a purely country-bred boy, and was born and brought up in a valley so secluded that it could not even boast of a cluster of houses of the dimensions of a village". . . . . .

"He (Telford) almost always had some book with him, which he would snatch a few minutes to read in the intervals of his work; and on winter evenings he occupied his spare time in poring over such volumes as came in his way, usually with no better light than the cottage fire."—Smiles: *"Lives of Engineers"*, p. 106 and p. 115.

a stone's throw of my residence, as Raja Bazar is tenanted by up-country uneducated Moslems, with whom a cheap inferior quality of beef is an article of diet. Several bags of raw bones were procured and left to dry on the roof of my house. It was winter season, when there is unbroken fine weather and sunshine in lower Bengal, but as ill-luck would have it, the January of that year was unusually wet and it rained almost incessantly for a fortnight with the result that the bits of flesh adhering to the bones began to rot giving out a disgusting stench, while swarms of thread-like maggots and worms appeared. Flights of crows now began to invade the house and enjoy a rich repast of these delicacies and fly around and scatter them among the congested dwellings of my friendly neighbours —all orthodox Hindus. They implored me to remove the nuisance and even dropped a gentle hint that unless immediate steps were taken, they would be under the painful necessity of invoking the help of the Corporation Health Officer. I was thus called upon to get rid of the unwelcome stuff at a moment's notice. Fortunately for me, a nitric acid distiller, whose acquaintance I had made during my trial experiments in the chemical line, realising my difficult position, came to my rescue. He had rented a plot of land at Maniktola near Muraripukur destined to be the scene of the famous bomb manufactory of the "Partition of Bengal" anarchists' days and suggested that the bones might be carted away there ; this was accordingly done and they were piled up as in a brick-kiln, and set fire to late in the evening. At midnight the entire mass was ablaze and the policeman of the beat ran to the spot and suspecting some foul play exclaimed ईहा क्यालास जलाताहै— a corpse is being cremated (in the wake of a murder). In order to disabuse him of this notion a pole was thrust into the burning pile, when clusters of loose bones came out. The policeman was convinced of the *bonâ fide* of the transaction and went his way. The bone-ash was now turned to good account. It was treated with sulphuric acid and converted into the super phosphate of lime, which on neutralisation with

soda, gave phosphate of soda solution. The filtrate on concentration was allowed to evaporate in basins, yielding lumps of phosphate of soda crystals.

Here I pause for a while to draw attention to my way of lecturing to students. I used to place on the table samples of burntbones, which had now nothing to do with the sources they came from ; they might have been derived from the sacred cow, or the horse or the human skull. The burnt bone was almost a pure chemical compound, absolutely free from organic impurities—being to the chemists, *phosphate of calcium* and in the powdered form it is prescribed as a nerve tonic. I would often put a bit of the burnt bone into my mouth and chew it and even swallow it wholesale and invite my pupils to do the same. Some of them would readily come forward ; but others hesitated and could not shake off their orthodox notions. Only the other day, a late pupil of mine, who had a distinguished academic career, and who is now an ornament of the Marwari community and who cuts a prominent figure as a lawyer, a businessman, an economist and a politician, humorously reminded me of this incident of his college career.

Having solved the problem of locally manufacturing on a large scale some of the chemicals, which hitherto used to be imported, I took to preparations of the British Pharmacopœia. I was relieved to find that *Syrup Ferri Iodidi, Liquor Arsenicalis, Liquor Bismuth, Spritus Ætheris Nitrosi* and several tinctures did not present much difficulty to a trained chemist. I also undertook preparation of ether ; but a terrible explosion, which shattered the big glass retort to atoms and might have ended disastrously, warned me off. The crude saltpetre of the market also could be easily purified and made into *Potas Nitras B. P.*

Secondhand bottles and glazed jars—the empties—could be procured in any number from the *bikriwallas*[4] of Bowbazar Street and I began a regular inspection of their depots. I was

[4] Dealers in old jars, bottles etc. They remind one of Dickens' *Old Curiosity Shop.*

satisfied that local supply would be more than enough for my present purpose.

These preliminaries being settled the starting of a regular pharmaceutical works now took firm hold on my imagination. The christening of my *bantling* was racking my brains for some time and after mature deliberation I hit upon the name the firm now bears ; it is rather longish but my business must represent both the chemical and pharmaceutical side and time has proved its appropriateness, at any rate no objection has been raised against it.

And now I seriously thought of pushing my preparations in the market. I had already taken care to train a *dalal* (lit a broker) for purchasing raw-materials and selling the finished products. A youngman, who had served for some time as a compounder under my elder brother—a medical practitioner—and who was now sitting idle was sent for from my native village. He was familiar with the names of the ordinary drugs used in a dispensary and I broached to him my plan of manufacturing them locally. He had read up to the primary standard, and had only a knowledge of the 3 R's and a smattering of English ; he suited my purpose well. In those days "matriculation" boys were not as cheap and plentiful as blackberries. Boys, who have read up to the highest forms of the H. E. School or who have the misfortune of crossing the threshold of a college, imbibe queer notions of dignity and are often a bit conceited in this caste-ridden land of ours. The youth of my choice proved equal to the occasion. He came to live with me and demanded only a small remuneration. I promised him, however, a commission on sales. Being young, he was not a stranger to idealism or enthusiasm and he caught the contagion from me. One day on watching how rejected scrap iron treated with sulphuric acid yielded in due course beautiful crystals of green vitriol (Ferri Sulph. B. P.) he burst forth into exclamation "Oh God! how marvellous is the science of Chemistry". When again he saw that the offensive smelling, decomposing raw-bone was the parent of the Sodii

Phosp. B. P., his awe and wonder knew no bounds. My *dalal* now began to move about the drug-market with samples of preparations bottled, labelled and packed on the European model.

The local dealers in the drugs are as a rule innocent of rudimentary knowledge of Chemistry. They can at best cast accounts and calculate the profit and loss of a transaction. They expressed their admiration for the articles offered but shook their head saying: "*Bilati* (imported) drugs from firms of established reputation command a ready sale, whereas *Deshi* (indigenous) drugs would be refused by our customers". We had thus an up-hill fight from the beginning.

I had progressed thus far when an event occurred which not only gave a vigorous impetus to my exertions but proved to be of far-reaching consequences in the history of our business. One day an old fellow-student of mine, who was full of patriotic impulses and who had realised that unless our youngfolk had new careers opened out to them, middle-class unemployment would soon spell our economic ruin and bring on national disaster, hearing of my endeavours in the new direction, called on me. This was no other than Amulyacharan Bose, who was now a fairly successful medical practitioner and who was henceforth destined to play an important part in the history of the newly started business. I at once took him to the out-house, meant for the kitchen, wherein basins and improvised vats containing samples of *Ferri Sulph., Sodii Phosph.* and some other chemicals used in the pharmacy were crystallising and I also broached to him my scheme of establishing a chemical and pharmaceutical works and pointed out to him its feasibility. Amulyacharan was an enthusiast and he simply leaped with joy at the very mention of it and threw himself heart and soul into my project. His co-operation proved to be invaluable as apart from the pecuniary contribution brought in, he began to enlist the sympathy of the medical profession in favour of our preparations.

Since the acid factory at Sodepore could not be profitably

managed by Yadava Mitra, who had to depend entirely upon an ill-paid agent, who knew little and understood less about the affair, Mitra offered it to me at a price of Rs. 1,000/-. But how to find the money? After three years' service I had in the bank to my credit about Rs. 800/-, which was soon exhausted in the preliminary experiments. Mitra, who knew my financial position well, agreed to part with the factory if I signed a hand-note for the above amount, which I readily did. I was to earn in a month or two Rs. 600/- or so as examiner's fee and the balance I would pay off in instalments, so I closed with the offer and was at once put in possession of the acid 'works'. But a fresh difficulty arose. How to manage to conduct operations at a place not easily accessible and at a distance of six miles from my headquarters. I consulted Chandrabhusan Bhaduri, who was also a bit of an enthusiast in such matters. He fell in with my ideas. The summer-vacation of 1893 was about to commence and May and June were holiday months. He and his brother Kulabhusan and a relation of theirs withdrew to this out-of-the-way place. The "quarters" in which they lodged was a mud hovel. There was no market place near at hand ; no fish or vegetable were available ; they therefore provided themselves with a few bags of rice and potatoes and quite enjoyed their picnics in the midst of the romantic bamboo groves, and what is still more important they studied the technique of the acid chambers and found to their regret how the crude process employed led to the waste of the raw materials. Such a miniature factory might be paying to a small capitalist who himself managed it and looked after every detail ; but a trained chemist had scarcely any occupation here as everything was conducted by the rule-of-thumb method.

Messrs. Bhaduri had to leave the place as soon as the college session commenced in the beginning of July but they drew up a report suggesting that an up-to-date acid works should be constructed. But the time was not yet ripe. I could not command the requisite capital and my spare time

was fully occupied with the pharmaceutical side of the business. I had to wait for full ten years before the scheme of starting the chemical and pharmaceutical works on a bigger scale, with an "acid" department as an adjunct, could come to maturity.

In the meanwhile I plunged headlong into the intricacies of pharmaceutical preparations, gathering much help and many hints from the *Pharmaceutical Journal* and the *Chemist and Druggist* and Squire's *Companion to British Pharmacopœia,* and Cooley's *Cyclopædia of Recipes,* etc. I was thrown upon my own resources and had to solve problems as best I could. One instance might suffice. The syrup of iodide of iron (Syr. Ferri. Iod. B.P.) which I made used to turn slightly brown on keeping ; this was due to the ferrous iron absorbing oxygen of the air and becoming very slightly oxidised to the ferric state, as also the iodide liberating traces of iodine, though in minute quantities. I was in a fix. The imported drug kept its light green colour intact for a considerable time. One day while turning over the pages of one of the journals referred to above, I came across just the hint I wanted. The minimum quantity of hypophosphorous acid added to the prepared solution of ferrous iodide would act as an excellent preservative and it would remain light green for any length of time. It was in this manner that I gained experience in the pharmaceutical line and solved difficulties as they cropped up.

Our preparations now began to push their way onwards and find at any rate a back seat in the shelves of the local druggists ; some of them, who had assumed almost a hostile attitude when the first samples were offered to them, and heaped ridicule upon our efforts, now began to veer round and even become true converts, nay, express admiration for the articles offered in the market ; but all the same they did not hesitate to throw the blame on their customers who had no faith in the *deshi* (indigenous) articles. In the meantime Amulyacharan began a vigorous canvassing among the medical profes-

sion. There is perhaps some point in the saying: "set a thief to catch a thief." The late Radha Gobinda Kar, who along with Amulyacharan and others will be always entitled to be regarded as the original founders of the Carmichael Medical College, was easily won over. His other comrades in the profession, who were just coming to the fore, e.g., Nilratan Sarkar, Suresh Prasad Sarvadhikary and a host of others, who were all inspired by patriotic impulse, began slowly but steadily to prescribe our Aitken's *Tonic Syrup, Syrup of Hypophosphite of Lime, Tonic Glycerophosphate,* Parrish's *Chemical Food* etc.

Both Amulyacharan and Radha Gobinda had an instinctive liking for and faith in the therapeutic properties of the indigenous drugs used by our *Kavirajas* (Ayurvedic Physicians) from time immemorial. I began with pharmaceutical preparations named above which were in vogue ; but Amulyacharan gave a new direction to our business. He consulted several *Kavirajas* and collected from them formulæ and recipes for the Ayurvedic preparations, e.g. extract of *Kalmegh* (Andrographis paniculata) ; extract of *Kurchi* (Holarrhena antidysenterica) ; syrup of *Vasaka* (Adhatoda Vasica) ; Aqua Ptychotis (Ajowan water) and placed them in my hands. Over and above that he began a regular campaign in favour of these and impressed upon the profession the fact that the efficacy of these drugs had been proved beyond doubt by their universal use in the households of Bengal. All that was needed was that their active principles should be extracted according to scientific up-to-date methods and that they should receive the *imprimatur* of the practitioners. Amulyacharan himself took the lead in boldly using these in his prescriptions. Slowly but surely they began to creep into favour and well they might. It was the universal practice in those days to prescribe syrup of tolu as an expectorant ; but it was found that syrup of Vasaka acted more efficaciously. Our newly introduced indigenous drug preparations thus began to make headway on their own merits.

It should be noted here that as early as 1841 O'Shaughnessy had recommended the use of indigenous drugs and later on

Kanai Lal Dey (*Indigenous Drugs of India*), Modern Sheriff and Udoychand Dutt (*Materia Medica of the Hindus, 1875*) had pleaded hard for the substitution of some of these for the official drugs in the British Pharmacopœia.[5] More than half-a-century had to elapse before their recommendations could obtain a hearing. At the Indian Medical Congress held in Calcutta in 1898 we had a stall in which we exhibited preparations of Indian drugs and these attracted considerable attention of the medical men gathered from different parts of India. A strong representation was made by the Council of the Congress at the instance, I believe, of Kanai Lal Dey, who was then almost on the verge of his grave, urging the official recognition of some of these drugs and the British Pharmacopœia authorities were at last prevailed upon to find a back seat for them in the "Addendum".

We were now in a position to feel our way in the market. Wholesale dealers began to make enquiries about the supply of this drug or that. One serious obstacle in the way of pushing "home made" articles lies in the fact that the drug-trade of Calcutta had been mainly captured by illiterate *banias* and up-country Moslems—the *Delhiwallas* etc.—who have not got a spark of patriotism in them and who do not hesitate to take unfair advantage of local producers. *Deshi Cheez* (home made articles) were not in request, therefore unless you lowered the price, they would not push them and even then one could not demand cash price, but the payment must be put off indefinitely. Fortunately, there were one or two leading Firms, conducted by Bengalis, which from the very start gave us warm support. One day we had occasion to purchase raw-materials such as

[5] *The Bengal Dispensatory and Pharmacopœia* by W. B. O'Shaughnessy, M.D., Professor of Chemistry and Materia Medica in the Medical College, Calcutta (1841). This pioneer work gives an account of a good many indigenous drugs and their medicinal properties, e.g., *Ananthmul* (Hemidesmus Indicus) as a substitute for sarsaparilla, *gulancha* (Menispermum Cordifolium), *gunjah* (Cannabis Indica), *akund* (Asclepias gigantea), *chirata* (Gentiana Ch.) etc.

iodine, balsam of tolu, radix belladonnæ, folia hyoscyami, etc., in fairly large quantities. The late Bhutnath Paul of Messrs. Butto Kristo Paul & Co., the leading house in the drug line, expressed surprise at the unusually large quantity of iodine in our invoice amounting I think to 7 pounds. An ordinary dispensary in Calcutta or in the moffusil would not consume more than one pound of iodine in a month or sometimes in a year. "What are you going to do with so much iodine included in a single invoice unless it be meant for a drugstore?" When it was explained to him that the iodine would be made into *Syrup Ferri Iodidi* his curiosity was further excited. He had already been no doubt approached for orders but he had not hitherto taken our new venture in a serious light as he was naturally not confident of its success. Here was an eye-opener to him. Seven pounds of iodine and similar items of tolu etc., all to be converted into British Pharmacopœia preparations! Paul at once placed orders with us for one hundredweight of *Syrup Ferri Iodidi* and if I remember aright for another hundredweight of *Ferri Sulph.*[6]

When this order was placed in my hands my joy knew no bounds. Every afternoon on returning from college (about 4-30 p.m.) I used to go through the previous day's orders and to see that they were executed promptly. The migration from my college laboratory to the pharmacy laboratory was to me a recreation and a change of occupation. I would at once throw myself into my new "job" and work at a stretch from 4-30 p.m. to 7 p.m. and "clear the file." When work is coupled with a keen sense of enjoyment it does not tell upon your health; the very idea of locally manufacturing pharmaceutical preparations, which hitherto had to be imported, acted like a tonic. Preparations like *Syrup Ferri Iodidi, Spirit of Nitric Ether, Tincture of Nux Vomica* etc., were really laboratory preparations, as they could only be undertaken by a trained

[6] Orders in the drug-market are in terms of hundredweights or its submultiples: 56 lbs., or 28 lbs., or 7 lbs.

chemist and each sample must be of guaranteed strength ; in other words they involved analytical skill in assaying.

About this time a terrible catastrophe befell me. Amulya's brother-in-law (sister's husband) Satischandra Sinha had taken his M.A. degree in Chemistry and had completed his attendance at law-lectures. Under ordinary circumstances after passing his law examination he would have commenced his career as a legal practitioner. Satis's imagination caught fire from Amulya and he made up his mind to turn his chemical knowledge to account and therefore joined our infant concern. It required no small degree of conviction and moral courage to throw in his lot with a venture that was not only in its infancy but scarcely held out any prospects in the near future ; one had to be prepared to work hard and expect no remuneration for some time to come. Young Satis was a valuable acquisition to me. He also brought in some capital with him. I was hitherto single-handed as far as chemical operations were concerned and the strain was proving too much for me. Moreover, all my spare time, which I used to devote to study, was snatched away. I now initiated Satis into the mysteries of the new processes which I had worked out and he being a trained chemist could easily master them. We toiled in hearty co-operation for a year and a half and a demand for a good many of our preparations had been created in the market. Things were getting on merrily and prosperously ; a certain section of the medical profession made it a point to include our preparations in their prescriptions wherever possible.

Providence had, however, ordained that I should pass through an awful ordeal. One evening I had gone out for my usual constitutional walk. On returning home about half past eight I was stunned to hear that Satis was no more. He had been accidentally poisoned by hydrocyanic acid. I was scarcely in my senses when I ran to the Medical College Hospital, where I saw the dead body of Satis on a stretcher. I stood, motionless and aghast, and it was some time before I could come to myself and realise the situation. Here was a youngman

with a career before him full of promise cut off in the very threshold, leaving behind aged parents and a disconsolate young widow. The deep anguish of mind of Amulya and myself cannot be described. We felt as if we were personally responsible for the loss of a valuable life. Thirty-two years have elapsed since the tragic incident ; but as I write these lines, a shudder, like an electric shock, passes through my frame.

For a time it seemed as if our cherished hopes had been dashed to the ground. After the first outburst of grief was over, Amulya and myself pondered over the situation. "The Lord hath given and the Lord hath taken away, blessed be the name of the Lord",—it was in this spirit that I sought consolation. There was no retracing our steps. I had again to take all the responsible duties on my shoulders. With a grim, dogged determination I faced the difficulties.

Fortunately for me diversified work has been my recreation, the chief solace of my life. Orders must be executed. In fact, a big order always acted as a stimulant ; and in those days I could labour prodigiously without my health being impaired. A couple of hours in the morning, I have throughout my career religiously set apart for my studies—chemical and literary. If by mischance my apportioned time was in any way interfered with, I would almost exclaim with Titus, "A day has been lost!" On sundays and holidays I used to work, some 10 to 12 hours, almost at a stretch with an hour's interval for bath and meals. The labour was more or less mechanical and of a routine character and did not tax my brain. I would sometimes rest on my arm-chair and under my direction and supervision, one or two compounders would weigh out various ingredients and make them up into the requisite preparations of which I would now and then take samples and after analysis standardise them. By following the suggestions of pharmacists and by going carefully through vast literature on the subject I got ready in my laboratory a good number of concentrated liquors of definite strengths, as also liquors for

syrups of various descriptions. If it was necessary to make, say, one hundred pounds of *Aitken's Syrup*, all that I had to do was to draw off a measured volume of the liquor and mix it up with the required volume of the syrup and in this manner in almost five minutes' time I could serve the order.

There is a decided advantage when a chemist who has acquired a fair mastery over his subject takes up a problem involving technical and scientific knowledge. He is always resourceful and readily tackles any difficulties as they come. He is never at his wit's end. He can hit off new methods and processes which are valuable assets to him in the shape of trade-secrets. I laboured, however, under one serious handicap. The capital we had hitherto invested barely exceeded rupees three thousand. I could hardly save anything from my own salary. Amulya was getting into good practice ; but he was the chief bread-winner of a big joint-stock Hindu family and he was in addition very charitably disposed. He could not save much. A portion of the capital we had invested was necessarily tied up in apparatus, jars, bottles and various raw materials. In the meanwhile the sulphuric acid factory at Sodepore was in a bad way ; its daily output did not exceed 10 mds. (820 lbs. of sp. gr., 1720) and it could not be kept on as a paying concern at such a distance from Calcutta.

In the beginning of the summer vacation of 1894, I received news of the death of my father and I hurried home with my eldest brother. What remained of our landed property was heavily mortgaged. We came to amicable terms with our creditors including the Khulna Loan office ; made arrangements for the payment of a portion of the debt by easy instalments and cleared off the balance by selling some estates. The affairs being completed within a week's time, I returned to Calcutta and took my quarters at the acid factory during the remaining sixweeks of the summer holidays so that I might see with my own eyes the state of things there. Everyday, however, I had to undertake a tedious journey to Calcutta and stay at the head office for 3 to 4 hours in order to supervise the preparations. At Sodepur

I used to utilise my leisure hours by going through my favourite book—Kopp's *Geschichte der Chemie* (History of Chemistry). When the vacation term ended, I had to remove to Calcutta. It did not take me long to arrive at the conclusion that an acid factory on such a miniature scale could only be conducted at a loss and I had most reluctantly to scrap it. The second-hand lead sheets fetched only 3 or 4 hundred rupees. In this venture or undertaking some loss was necessarily incurred, but the experience thus gained proved to be a valuable asset, which was turned to good account several years later.

At this time another misfortune overtook me and our young venture. Amulya had in his professional capacity treated a patient, who had contracted bubonic plague of the pneumatic type. This form of the virulent disease is highly infectious and he himself caught it. One Sunday afternoon (Sep. 4, 1898) I was going as usual through the list of preparations and finishing with syrup of hypophosphite of lime, when I came to learn that poor Amulya was no more and that his dead body had been removed to the Nimtola Ghat cremation ground. I immediately left the preparation, took a hackney carriage and drove to the spot to have a last look at it. After staying there a few minutes and subduing my grief, I ran back to my place and finished the preparation. After Amulya's death I was left in sole charge of the works. The story need not be further continued. It is enough to state here that the "works" was five years later converted into a limited liability company and in order that its expansive operations might be conducted on a much bigger scale, a plot of land measuring about 13 acres was secured in the suburbs, three miles off the main office.

Dr. Travers, first Director of Indian Institute of Science (Bangalore), who had occasion to visit the Chemical Works during its construction (1904—7) in the course of a report to the Calcutta University observed as follows:

"The construction and management of the works is the work of the past students from the chemistry department of the Presidency College. . . . . The design and construction of the sulphuric acid plant and of the plant required for the preparation of drugs and other

products involved a large amount of research work of the kind which is likely to be of the greatest service to this country and does the greatest credit to those concerned".

Mr. (now Sir John) Cumming observes:

"The Bengal Chemical & Pharmaceutical Works, Ltd., is one of the most go-ahead young enterprises in Bengal. Dr. Prafulla Chandra Ray, D.Sc., F.C.S., started it as a small private concern in Upper Circular Road about 15 years ago and made drugs from indigenous materials. About six years ago it was made into a limited liability company, with a capital of two lakhs. Many of the leading chemists in Calcutta are share-holders. It has now a well-thought out and well-managed factory with about 70 workmen, at 90, Maniktolla Main Road. Babu Rajshekhar Bose the Manager, is an M.A. in Chemistry. The variety of manufactures of laboratory apparatus, which requires skilled craftsmen in wood and metal, has been taken up. The latest development is in perfumes. The enterprise shows signs of resourcefulness and business capacity, which should be an object lesson to capitalists of this province"—*Review of the Industrial Position and Prospects in Bengal in 1908*, pp. 30-31.

The new extension of the Chemical Works at Panihati (12 miles south of Calcutta) covers 50 additional acres. The sulphuric acid plant with Glover's and Gay-Lussac's tower installed here is perhaps the biggest of its kind in India. The Firm at present employs 2000 hands and its net assets come upto half-a-crore of rupees.

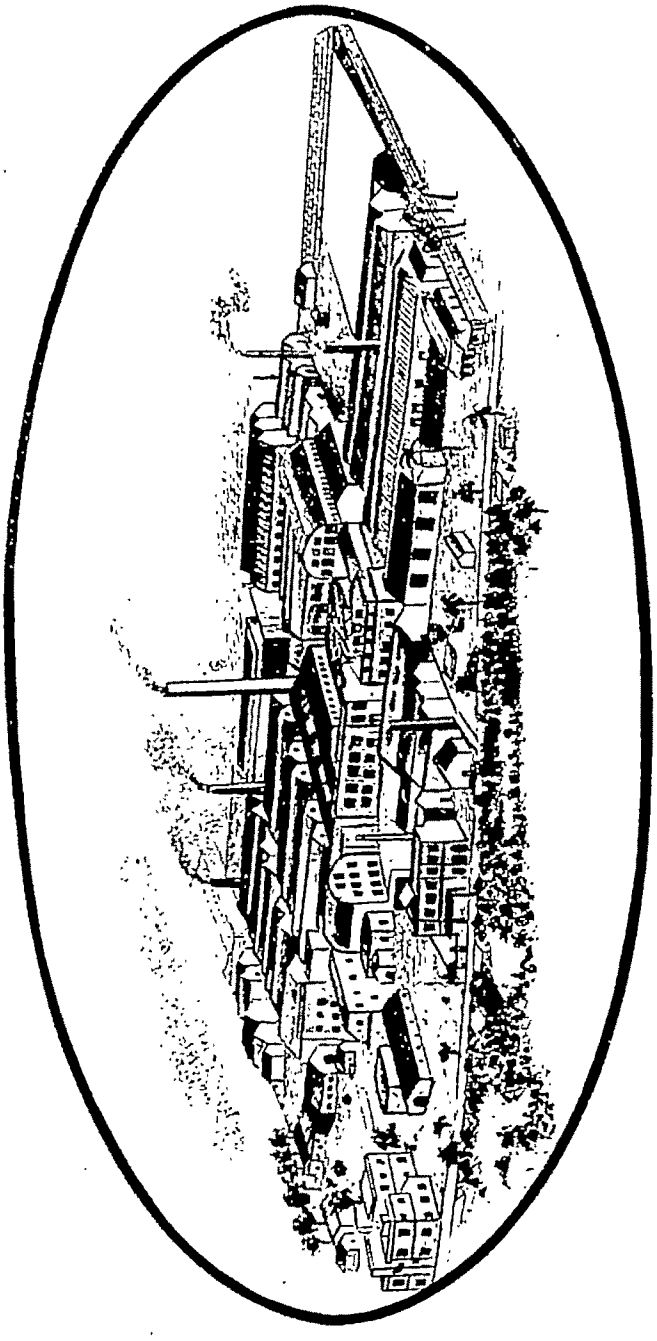
CHAPTER VIII

New Chemical Laboratory—Mercurous Nitrite—History of Hindu Chemistry

The chemical department of the Presidency College, located in the old one-story building, was now proving quite inadequate to meet the increased demands made upon it. Although practical work for the F.A. in Chemistry was not yet compulsory, the number of students choosing this subject for the B.A. and M.A., courses was increasing year after year. There were no flues for drawing off the noxious gases and the ventilating arrangements were most rudimentary; in fact while the practical classes were in full swing, the atmosphere, especially in the rainy season, thickly laden with fumes, became suffocating and highly injurious to health.

On one such occasion I invited Principal Tawney to go the round of the laboratory and breathe the air for a few minutes. Tawney, who, I believe, suffered constitutionally from weak lungs, after being in for a couple of minutes became terribly agitated and rushed out of the room and fulminated in a letter to the Director of Public Instruction against the state of things. He pointed out that if the Health Officer would come to know of it, he would be justified in prosecuting the authorities of the college for endangering the health of the students.

Pedler was also fully persuaded that a new laboratory should be constructed and fitted up with up-to-date appliances. He by slow degrees worked up Croft and brought him round to his views and also moved the Bengal Government to this effect. One fine morning in January 1892, Croft and Sir Charles Elliott visited the chemical department and discussed with us the preliminaries about the new building to be erected. We soon learned to our delight that Government had



AIRPLANE VIEW OF THE BENGAL CHEMICAL AND PHARMACEUTICAL WORKS.

sanctioned and approved the plan submitted to it. I had a copy of the reprint of the description of the Edinburgh University's new chemical laboratory, containing drawings and diagrams illustrating the students' working benches, the re-agent shelves, the ventilating flues, etc., and some of these were incorporated into our new plan. Pedler had also collected some plans of the German laboratories. Chandrabhusan Bhaduri materially helped Pedler in drawing up the plan of the present laboratory.

We removed to the new buildings at the beginning of the session, July 1894. It soon began to attract visitors from different parts of India and by a curious coincidence my renewed and redoubled activity in the field of chemical researches dates from this eventful year. I had taken up the analysis of certain rare Indian minerals, in the expectation that one or two new elements might turn up and thus fill up the gap in Mendeleeff's Periodic System: Mr. (now Sir Thomas) Holland, then a junior officer in the Geological Survey of India and also a lecturer in Geology, Presidency College, kindly undertook to supply me with specimens of such minerals. I went through my noviciate in this branch, following Crookes' *Select Methods in Chemical Analysis*, at that time a standard work on the subject, and made some progress when my chemical career underwent an unexpected turn.[1]

The discovery of mercurous nitrite opened a new chapter in my life. The circumstances which led to it are thus described in the opening paragraph of the first communication on the subject. "Having recently had occasion to prepare mercurous nitrate in quantity by the action of dilute acid in the cold on mercury, I was rather struck by the appearance of a yellow crystalline deposit. At first sight it was taken to be a basic salt, but the formation of such a salt in a strongly acid solution was contrary to ordinary experience.

1 *Mem. Geolog. Surv. Ind.*, vol. 28 (1900), p. 142.

A preliminary test proved it, however, to be at once a mercurous salt as well as a nitrite. The interesting compound promised thus amply to repay an investigation." *Journ. As. Soc.* (Bengal), 1896.

It is not necessary to give here anything like a detailed enumeration of the investigations on mercurous nitrite and its numerous derivatives as also on the nitrites in general, as they form the subject-matter of some one hundred and more communications to chemical journals. As one new compound followed in the wake of another, I took up their examination with unabated zeal. In short, I could fully enter into the feelings of one of the illustrious makers of modern chemistry, the immortal Scheele:—"There is no delight like that which springs from a discovery ; it is a joy that gladdens the heart." To plough the new field thus opened up and to explore the untrodden regions was a constant source of thrilling excitement. Hunters know well that it is in the pursuit of game and not in the actual securing of it that the keen enjoyment lies ; the appreciative and congratulatory letters from eminent chemists like Roscoe, Divers, Berthelot, Victor Meyer, Volhard, and others not only filled me with inspiration but stimulated me to further activity.[2]

At this period I also took care to divide my time equally between the study and the laboratory ; a portion of my time being also detailed off for the preparations of the Bengal Chemi-

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2 Cf. "The Journal of the Asiatic Society of Bengal can scarcely be said to have a place in our chemical libraries; the current number, however, contains a paper by Dr. P. C. Rây, of the Presidency College, Calcutta, on mercurous nitrite, that is worthy of note. During a preparation of mercurous nitrate by the action of dilute nitric acid in the cold on mercury, yellow crystals were deposited which upon examination, proved to be mercurous nitirite." *Nature*, (1896).

"The way in which you have gradually made yourself 'master of nitrites' is very interesting and the fact that you have established that as a class they are far from being the unstable bodies, chemists had supposed, is an important addition to our knowledge". Prof. Armstrong, *Presidency College Magazine*, 1914-15, p. 155.

cal Works. A victim of insomnia, I had to practice rigid abstinence as regards my appetite for reading. For the last fortyfive years or more I have not been able to do any literary or intellectual work by candle light ; every such effort carried on after even-tide would involve serious consequences in the shape of keeping me awake almost the whole night. I have all along followed the maxim : *Early to bed and early to rise* and have found by experience that an hour spent over books in the morning is equivalent to two or more in the evening or at night. Moreover, a student who has to spend the best hours of the day in the close and stuffy atmosphere of the laboratory would conserve his health best if he were to spend religiously a couple of hours in the open air. My remarks, however, must be qualified when applied to cold climates. In Edinburgh or London in the winter season I could read light literature with impunity for an hour or two in the evenings.

At this time I was also indulging my favourite hobby,—researches into the History of Chemistry, including lives of the makers of our science. Kopp's *Geschichte* was a hard nut to crack ; its long-winded and involved sentences were by no means easy reading, but so great was the interest created day by day that I waded through it. I ungrudgingly devoted my precious morning hours to mastering its contents. I also knew full well that our *Kavirajas* (Ayurvedic physicians) used many metallic preparations of which an account is given in Udoychand Dutt's *Materia Medica of the Hindus*. My curiosity prompted me to read some of the original Sanskrit works quoted in this pioneer work. In the Presidency College library I came across Berthelot's *L' Alchimistes Grecs*, which further stimulated my inquisitiveness. About this time I was brought into correspondence with the great French chemist himself. I had occasion to write to him to say that he was evidently not aware that in ancient India also alchemy was zealously pursued and that there are several treatises in Sanskrit on the subject. The reply which my letter elicited is characteristic of the man and

I cannot do better than reproduce the facsimile of the original The English translation is given in the foot-note.[3]

[3] Sir,

I have received your chemical researches which are highly interesting and I have seen specially with pleasure how science with its universal and impersonal character is equally cultivated by all the civilised peoples of Asia as well as of Europe and America.

I ask your permission to invite your attention on certain information, you have given relative to the alchemy of India. Perhaps you are not aware of the works in 3 vols. that I have published on the History of Chemistry of the Middle Ages.

1. 1st Vol. regarding the transmission of Asiatic Sciences.
2. 2nd Vol. regarding Syrian Alchemy and
3. 3rd Vol. regarding Arabian Alchemy.

In the latter are to be found some indications and quotations relating to Indian Alchemy. They are drawn principally from a Treatise of Ostanes which I refer to in my third vol., pp. 117-127. There are certain references in the Book of Crate's, p. 63 etc. If you have that work at Calcutta it may interest you.

I also published about 2 years ago in the *Journal of the Savants* an article on the Chemical Science of China according to the new translations.

I am led to believe that the Indian and Chinese alchemy has come from Greece by the intermediaries of the Syrian Nestorians of the 6th and 8th century of our era.

But I am very anxious to know the Indian Treatises of the 13th century which you have mentioned. Have they been printed? Is there any translation or analysis in English or in any European language? In that case I shall be highly obliged to you if you can inform me exactly or if you can send me those works, because I believe one cannot procure them at Paris.

If it is necessary to write to the Colonial Director of London it will not be difficult for me to have the permission provided that the information is precise.

I ask you many things but it is the result of your letter by which you have roused my curiosity.

With my best regards.

(Sd.) M. BERTHELOT.

It is a pity that I did not take any care to preserve the numerous letters which I received at this period from eminent chemists. The one quoted above is in my possession only through an accident. One day in my retiring room at the Presidency College I found several scraps of paper lying scattered about, awaiting the sweeper's broom; my eye chanced upon Bertholet's letter reproduced above.

26 Juillet 1897

Monsieur

J'ai reçu vos recherches de Chimie, qui sont fort intéressantes et j'ai vu surtout avec plaisir comment la science avec son caractère universel et impersonnel est cultivée chez toutes les peuples civilisés, en Asie, aussi bien qu'en Europe et en Amérique.

Je vous demande la permission d'insister sur les renseignements que vous donnez relativement à l'Alchimie dans l'Inde. Peut-être n'avez-vous pas connaissance de l'ouvrage en 3 volumes in-4° que j'ai publié sur l'histoire de la Chimie au moyen âge, le 1er v relatif à la transmission de la science antique, le 2e à l'Alchimie syriaque, le 3e à l'Alchimie arabe. Dans ce dernier se trouve des indications et citations relatives

renseigner exactement; sinon même de me faire envoyer ces ouvrages; car je ne crois pas qu'on puisse se les procurer à Paris. S'il fallait pour cela quelque concours du Jardin Colonial de Londres, il ne me serait pas difficile de l'obtenir, pourvu que les indications fussent précises.

Je vous demande bien des choses; mais c'est là le résultat de la lettre par laquelle vous avez piqué ma curiosité.

Veuillez, cher Monsieur, agréer l'assurance de mes sentiments dévoués.

M. Berthelot

à l'Alchimie indienne : Elle sont tirées principalement d'un traité d'Ostanès, que j'ai cité dans ma 3e volume, p. 117-122 — Il y a aussi quelques indications dans le livre de Crates p. 63, etc. Si vous avez cet ouvrage à Calcutta, il pourra vous intéresser.

J'ai également publié, l'an dernier, il y a deux ans, dans le Journal des Savants une Note sur la science chimique des Chinois, d'après des traductions nouvelles.

Je suis porté à croire que l'Alchimie indienne et l'Alchimie chinoise sont venues des Grecs, par l'intermédiaire des Syriens Nestoriens, du Ve au VIIIe siècle de notre ère. Mais je serais très curieux de connaître les traités indiens du XIIIe siècle que vous me signalez. Ont-ils été imprimés ? en existe-t-il une traduction — ou une analyse — en anglais ou dans une langue européenne ? Dans ce cas, je vous serai obligé de me

The moral effect, the letter produced on me, was profound. Here was perhaps the then foremost exponent of our science, approaching the allotted span of life, according to the Hebrew scriptures, showing youthful unbounded enthusiasm to know all about a new chapter in the history of chemistry, and I, a young man, was progressing rather slowly. I received almost an electric impulse and was stirred to fresh activity.

In response to Berthelot's fervid appeal I hastily drew up a paper based chiefly upon the introductory chapters of *Rasendrasara Samgraha* and forwarded it to him. I soon discovered by further studies that this treatise is not of much importance for a student of Hindu Chemistry. Berthelot, however, carefully went through the manuscript and elaborated upon it an article in the *Journal des Savants*,[4] and not only sent me a few copies of its reprint, but also three monumental volumes of his encyclopœdic work on Syriac, Arabic, and middle-age Alchemcy referred to in his letter. I greedily devoured the contents of these, and the idea now firmly took hold of me that I must write a history of Hindu Chemistry modelled upon the exemplars before me. Another incident also acted as a stimulus. One evening while I was attending a meeting of the Asiatic Society of Bengal, my attention was directed to the current issue of the *Journal des Savants* lying on the table and almost instinctively my eyes were turned towards an article by Berthelot of which the last para runs thus.

"Cependant il serait necessaire d'examiner certains documents qui m'ont été recemment signalés par une lettre de Rây, professeur à Presidency College (Calcutta). D'après ce savant, il existe des traités d'alchime ecrits en sanscrit remontant au XIII siècle et qui renferment des préceptes pour preparer les sulfures de mercure noir et rouge et le calomel employés comme médicaments. Ces indications s'accordent avec celles des alchimistes arabes signalees plus haut. Il est a desirer que ces traités soient soumis à une étude approfondie pour en déterminer

[4] Matériaux pour un chapitre negligé de l'histoire de la chimie ou contributions à l' Alchimie indienne (Mémoire manscript de 43 pages), par Prafulla Chandra Rây, professeur à Presidency College, Calcutta". *Journal des Savants*, April, 1898.

l'origine probablement attribuable a une tradition persane ou nestorienne" —*Journal des Savants*, Oct., 1897.

A thrill as it were passed through my body. Here was I, a junior professor (or rather assistant professor) of Chemistry almost unknown to fame, and there the foremost chemist and historian of chemistry speaking of me as a *savant*. The idea soon took possession of my mind that I was destined for some higher production.[5] I was not at all appalled by the gigantic nature of the task. I instituted a vigorous search for manuscripts bearing upon the subject and ransacked the pages of Aufrecht's *Catalogus Catalogorum*, Bhandarkar's, Rajendra Lal Mitra's, H. P. Sastri's and Burnell's Notices of Sanskrit Mss, and put myself in communication with the librarians in India and the India Office, London, where some of the manuscripts have been preserved. Pandit Navakanta Kavibhusan, who acted for four or five years as my amanuensis, was also deputed to Benares in search of old works on alchemy. Any one who has experience in collecting Mss. in India knows what ravages the white ant, the silver fish and other insects commit on them. The damp climate of Bengal is specially unfortunate in this respect. It was often necessary to collect as many as 3 or 4 Mss., of the same *Tantra* since sometimes the introductory pages were found eaten up by worms, sometimes again the concluding portion ; there are also discrepancies in the readings of different Mss. In order to bring this home to the reader it is only necessary to refer to the edition of *Rasarnava* in the *Bibliotheca Indica*.[6] The following extract from the preface to

[5] Readers of Froude's *Life of Carlyle* will not have failed to notice that while the philosopher was almost on the brink of starvation (with £5 in his pocket to front the world with) and while publisher after publisher was rejecting his *Sartor Resartus* as sorry stuff, a letter from Goethe all at once revived his drooping spirits. The recognition of his merits by the greatest seer then living did not fail to convince him that a time would come when he would compel the world's homage.

[6] "The *Rasarnavam* or the Ocean of Mercury and other Metals and Minerals.—Ed. by P. C. Ray and K. C. Kaviratna, pub. by the Asiatic Soc. of Bengal, 1910.

the first volume of the history represents in a nutshell my object in undertaking the task.

"Since the days of Sir W. Jones, Sanskrit literature, in almost every department, has been zealously ransacked by scholars, both European and Indian. As the results of their labours we are now in possession of ample facts and data, which enable us to form some idea of the knowledge of the Hindus of old in the fields of Philosophy and Mathematics including Astronomy, Arithmetic, Algebra, Trigonometry, and Geometry. Even Medicine has received some share of attention . . . . . One branch has, however, up till this time, remained entirely neglected namely, Chemistry. Indeed, it may be assumed that on account of its complex and technical nature it has hitherto repelled investigators".

It is not necessary to give details here as any one who cares to turn over the pages of the *History of Hindu Chemistry* will have no difficulty in realising the gravity of the task undertaken ; it was however a self-imposed one and when the work itself is a source of pleasure, nay, enjoyment as I have said before, it does not tell upon the health, on the contrary, it has a bracing effect. It was a source of gratification to me that almost immediately on the appearance of the first volume it was welcomed with high encomiums both at home and abroad. Not to speak of our own journals, *The Englishman, The Pioneer, The Times of India* came out with lengthy, appreciative notices, one of which was pleased to call it a "monumental labour of love." *Knowledge, Nature* and the *American Chemical Journal* also reviewed it with appreciation and sobriety of judgment. Berthelot devoted 15 pages of the *Journal des Savants,* (Jan. 1903) to a critical review and thus concludes.

"C'est un chapitre intéressant ajouté à l'histoire des sciences et des l'esprit humain, chapitre particlièrement util pour la connaissance des relations intellectuelles réciproques qui ont existé entre les civilisations orientales et occidentales."

Knowledge, March, 1903, observed :—"Professor Rây's book is an important contribution to scientific literature, and students of the history of science will be glad that such an instructive selection from the records of Hindu Chemistry is now available".

Dr. Mahendra Lal Sircar in his *Calcutta Journal of Medicine* (Vol. XXI, No. 10, Oct., 1902, p. 407) thus reviewed it:

"It is a rule with all journalists to notice only those works which are sent to them for purposes of review. If in the present instance, we have deviated from the rule it is because we have allowed our patriotism to override our editorial dignity. Authorship such as the kind we have deemed it our duty to notice, authorship in the direction of historical research as to the state of a science in ancient and mediæval India, which has made true progress only in modern times, authorship guided by a full knowledge of that science—such authorship is not only rare but so unique in our country that omission to notice it would have been a dereliction of duty".

"It is a noteworthy sign of the times that we, Indians, who have been stigmatized as lovers of hyperbole, and absolutely wanting in the historic sense, have taken to the study of History, especially of the history of our forefathers, of their civilisation, their arts and sciences. It is by the constant taking of stock that one becomes aware of one's deficiencies and the lines along which they may be made good. And history is nothing but taking stock of a nation's assets and liabilities in all the departments of worldly existence. It is, therefore, not only as a matter of duty but with sincere delight that we hail the appearance of the first volume of *A History of Hindu Chemistry* by so skilful and zealous a chemist as Prof. Prafulla Chandra Rây, D.Sc., of the Presidency College, Calcutta. For some years past he has been labouring to collect materials for his history, some of which he has presented in the volume before us".

English chemists as a class are rather indifferent to the history of chemistry and since the days of Thomson scarcely a single authoritative work on the subject has been written in English by any one of them. They have in fact contented themselves with simply translating Ladenburg's or Meyer's treatise dealing with the subject. There has been, however, all along a fair demand for my humble work in England, proving that a limited few at any rate are interested in it. The then Vice-Chancellor of the University of Durham on the occasion of conferring the Honorary degree of D.Sc. (1912) on the author took occasion to say,

"A keen and successful investigator, he has long made his mark by contributions to scientific periodicals, both English and German, but his fame chiefly rests on his monumental *History of Hindu*

Chemistry a work of which both the scientific and linguistic attainments are equally remarkable, and of which, if of any book, we may pronounce that it is definitive".

It is gratifying to note that all along and even after the lapse of 30 years the work receives appreciative notices in the European scientific Journals ; e.g. Hermann Schelenz in his *Geschichte der Pharmazie* (1904) gives an account from the *History of Hindu Chemistry* of the methods of distillation, sublimation &c., and expresses his wonder that at so early a date (as 12th or 13th century) these processes were known in India.

Professor Alexander Baték (Bohemia) wrote (1904) :

"I am publishing in my mother language (tchèque) in short lectures the history of natural sciences and I pray you to allow me to publish also a short extract of your excellent book, *A History of Hindu Chemistry* in this collection.

Svante Arrhenius in his *Chemistry in Modern Life* (Eng. trans. by Leonard) quotes from the Hindu Chemistry at length and assigns to India the priority in the use of metallic, especially mercurial drugs.

The latest Review of the work appears in the Italian Archivio di Storia della Scienza (Archives for the History of Science). Below is appended a literal translation of portions.

"Interest in the history of science has been spreading to-day in all the civilized countries; and although very often still it leads but to the production of works of small value,—the legion of dilettantes abounds everywhere and constitutes the noisiest gang—many others embody writings of noteworthy importance. And thus in all countries, besides the simple copyists and others inspired by stupid and senseless nationalism, who believe that science has developed in only one nation and that their own, there are to be found chosen spirits who possess the necessary preparation and adequate intelligence to collect, write and judge, and who, if they prefer to occupy themselves with their own country on account of reasonable sentiment and natural competency, do so with a large vision and an unprejudiced mind and deserve therefore to be inquired into and studied in their writings. In India, in so far as the history of chemistry is concerned, such a predominant position belongs to Sir P. C. Rây, to whom we owe quite a series of noteworthy works.

* * * * * *

But the capital work of Ray's that will cause his name to be remembered, is the magnificent history of Indian chemistry from its origins to the middle of the sixteenth century."

Von Lippmann in his *Entstehung und Ausbreitung der Alchemie* (Berlin, 1919) gives an exhaustive summary of the two volumes of *Hindu Chemistry ;* he also lays stress on the fact that "Der Verfasser ist ein geborner Indier" (p. 43).

The preparation of the first volume of the History entailed such hard and continuous labour that it did not leave me much time to pursue my studies in modern chemistry, which had been advancing by leaps and bounds and making gigantic strides. During these years argon had been isolated by Rayleigh and Ramsay and its discovery was soon followed by that of neon, xenon and krypton. Radioactive properties of certain compounds and minerals were being studied and examined by Becquerel, Rutheford and Soddy, and the Curies had brought to a culmination the researches in this line by the discovery of radium itself. Ramsay soon showed that certain emanations of radium itself were converted into the gas helium and this was again an irrefragable proof of the transmutation of elements. In the meantime atmospheric air had been liquefied in quantity by Dewar. No less astounding was the liquefaction of hydrogen. While these epoch-making discoveries were following one another in rapid succession, I was buried in my researches into the chemical knowledge of the Hindus of old and therefore losing touch with the modern world. On the completion of the first volume I therefore paused in my antiquarian studies and put aside altogether for a few years my completion of the promised second volume of *Hindu Chemistry* as I had now to catch up and be *en courant* with modern chemical literature. It should be noted here that my laboratory work was never allowed to suffer. In fact, an unbroken series of papers on the nitrites appeared during this time in the scientific journals, chiefly in that of the London Chemical Society.

CHAPTER IX

Reminiscences of Gokhale and Gandhi

I had better pause here a little and break the continuity of my story to record my reminiscences of G. K. Gokhale and M. K. Gandhi with both of whom I came into close contact at this period. I am singling out only two notable characters here. If I were to recount my recollections of all the eminent Indians, I have come accross, possibly a separate volume would be required. For instance, I was in touch with Ananda Mohon Bose and Surendra Nath Banerji, both of whom I regarded as my revered *Gurus*. Nor need I dwell here upon all that I have learnt from my close association with the late Pandit Sivanath Sastri.

Sometime in 1901 Gopal Krishna Gokhale came to Calcutta to attend the session of the viceregal council. One fine morning Dr. Nilratan Sarkar called on me and asked me to be at once ready to accompany him to the Howrah station to receive the eminent Mahratta statesman. Within a few days we got to know each other and became fast friends. Gokhale was accompanied by his honorary private secretary, G. K. Deodhar, now the head of the "Servants of India Society". As there were some traits in common between us two, we could carry on our conversation on social, economic and political matters with mutual sympathy and understanding.

Gokhale's mastery of facts and figures and statistics has seldom been equalled and his speeches on the occasions of the presentation of the annual budgets by successive finance members have become classical. Even the masterful Lord Curzon was afraid of his trenchant, unassailable criticism and used to quail, so to speak, before it but that did not deter him from entertaining inwardly at least a high appreciation of Gokhale's abilities. In an autograph letter addressed to

Gokhale and which the latter showed to me, Lord Curzon concluded with the panegyric: *India has need of more men like you.* Since his premature demise in 1915, his place in the Imperial Council has never been worthily filled. Gokhale's speeches were characterised by moderation and sweet reasonableness and he was thus *persona grata* with the powers that be. He loved Bengal and the Bengalis and had many friends among them. The high encomium he bestowed upon the Bengalis (1907) is still remembered by the older generation.[1]

Gokhale used now and then to see me in my little retreat at premises No. 91 Upper Circular Road in which was also located the office and factory of the Bengal Chemical and Pharmaceutical Works then in its infancy. He took particular delight in calling me a "Scientific Recluse." In those days my activity was naturally confined to the laboratory at the College and my little room which was both my bedroom and study.

Gokhale like other founders of the "Servants of India Society" and the professors of the Fergusson college at Poona had submitted himself to a self-denying ordinance by undertaking to serve on the bare pittance of rupees seventy five per month. He used to describe himself to me as an intellectual grandson of Dadabhoy Naoroji, the first great Indian, who had made the economic condition of this vast peninsula his

1 "The Bengalees are in many respects a most remarkable people in all India. It is easy to speak of their faults. They lie on the surface, but they have great qualities which are sometimes lost sight of. In almost all the walks of life open to the Indians the Bengalees are among the most distinguished. Some of the greatest social and religious reformers of recent times have come from their ranks. Of orators, journalists, politicians, Bengal possesses some of the most brilliant. But I will not speak of them on the occasion because this class is more or less at discount in this place; but take science or law or literature. Where will you find another scientist in all India to place by the side of Dr. J. C. Bose or Dr. P. C. Ray or a jurist like Dr. Ghose or a poet like Rabindra Nath Tagore? My Lord, these men are not mere freaks of nature. They are the highest products of which the race is regularly capable; and a race of such capability cannot, I repeat, be put down by coercion."—*Speeches* (Natesan & Co., 1920) p. 309.

special study. Dadabhoy was followed by Mahadev Govinda Ranade who had also made Indian Economics his special subject of investigation. As Ranade may thus be regarded as a disciple of Naoroji, Gokhale, who was full of admiration for Ranade, whom he regarded as his *guru*, may thus claim to be Naoroji's grandson—economically speaking.

Gokhale was several years junior to me in age and I naturally in accordance with oriental ideas used to take liberties with him. Once I tore off a piece of paper and pencilled the following lines adapted from Byron and showed them to Gokhale: "Bhupen's politics is a thing apart. It is Gokhale's whole existence."[2] The fact is that during the lifetime of Gokhale and even long afterwards our political stalwarts like Ferozesha Mehta (Bombay), W. C. Bonnerjee, Monmohon Ghosh, Ananda Mohan Bose, Bhupendranath Basu, etc. were busy plying their legal trade and commanding lucrative practice. Politics was then a sort of diversion. Even Surendra Nath Banerjee was engaged in the career of a Professor and Journalist. The National Congress used to be designed as "a three days' pic-nic" in the Christmas holidays.

Gokhale was the first politician who in the latter part of his career devoted his whole time and energy to the study of political problems. With this end in view he took care to collect a library of well assorted books on economics, political history, statistics etc., so that the future members of the *Servants of India Society* may be well posted in these subjects. Once he brought Mr. (now the Rt. Honourable) Srinivasa Sastri to my room and introduced him to me as a poor schoolmaster like himself and whispered in my ears that he looked upon him as his future successor. Gokhale's penetration and insight I need scarcely add have been more than justified. It is curious to note that the two great Indian statesmen who have commanded not only the applause but also the admiration and respect of

2 "Man's love is a thing apart
'Tis woman's whole existence."

the listening senates at home and abroad have been like my humble self schoolmasters.

I started for England for the third time from Bombay on May 1st. 1912. By a curious coincidence Gokhale happened to be my fellow-passenger and I immensely enjoyed and profited by his company. One incident comes vividly to my mind. An English merchant who had business relations in the East was returning home and was among the passengers. One morning at the breakfast table the conversation turned upon the amount spent by the Indian Government on education. He in a supercilious tone exclaimed: "What! are we not already spending too much on education?" Gokhale at once flared up and said: "Sir, what do you mean by 'we'? Am I to understand that England raises a sum by subscription and spends it as charity for education in India? Are you not aware that far from England spending anything that way, the revenues of India are frittered away and only an insignificant fraction of it is spent on education?" Gokhale was always known to be of imperturbable temper and this was the only occasion on which I saw him lose control of it. The effect at the breakfast table was almost magical. Everyone kept quiet. While I was on the deck shortly afterward some gentlemen spoke to me aside and pitied the English merchant saying that had he been aware with whom he was confronted he would have thought twice before exchanging a single word.

Towards the end of 1901, there came a notable visitor to Calcutta as a guest under Gokhale's roof—Mohandas Karamchand Gandhi. Needless to say, I was attracted to him from the very first by his magnetic personality and our common devotion to asceticism. My esteem for and intimacy with him have grown in intensity as the years have rolled on.

As Mahatmaji has, in his autobiography, given an account of our first meeting, I need not further refer to it. It is wonderful how after a lapse of a quarter of a century he could remember even the details of the conversations we used to have.

His memory, however, has been at fault on one essential point. It was from his lips that I heard for the first time a vivid and moving account of the disabilities under which the Indian settlers in the Cape laboured. I naturally thought and Gokhale agreed with me that if a public meeting could be arranged in Calcutta at which Mr. Gandhi would be the principal speaker, the grievances of our far-off countrymen would be brought home to our people. With this object in view I took the leading part in organising a meeting at the Albert Hall and I prevailed upon the late Narendra Nath Sen, the veteran editor of the *Indian Mirror*, to preside over it. The *Englishman* also took up Gandhi's cause with some degree of warmth and devoted some leaders to the South African situation. A short account of the proceedings of the meeting is given below from the *Englishman*, Monday, January 20, 1902.

MR. M. K. GANDHI ON SOUTH AFRICA.

Mr. M. K. Gandhi gave an interesting lecture last evening in the Albert Hall before a large audience on his experiences in South Africa. Mr. Narendra Nath Sen presided. There were present Raja Peary Mohan Mukerji, Hon. Prof. Gokhale, Messrs. P. C. Ray, Bhupendra Nath Basu, Prithis Chandra Ray, J. Ghosal, and Prof. Kathavate, and others. Mr. Gandhi after describing South Africa generally, described the position of the British Indians in that sub-continent. He said that in Natal the Immigration Restriction Act, the law relating to licenses, and the state of education of Indian children were the chief matters of concern. In the Transvaal the Indians could not own landed property nor could they trade anywhere except in locations. They could not even walk on the footpaths. In the Orange River Colony the Indians could not even enter except as labourers, and then under special permission. The lecturer said that the position was due to misunderstanding rather than to any deliberate intention. The misunderstanding arose and grew owing to the absence of English-speaking reliable Indians who might have acted as interpreters between the two communities. In order to remove these grievances they acted on two maxims :—viz. to stick to truth at all costs, and to conquer hatred by love. The speaker asked his audience not to treat the statement as merely a formality. To give effect to the policy they had established in South Africa an association called the Natal Indian Congress, which by its work had become a recognised force and was

considered by the Government as a very useful and indispensable body.. The Government sought its assistance on several occasions. The association has also raised funds in aid of the starving. The speaker concluded his remarks by saying that at the meeting he was merely concerned with bringing out the best points of the two communities. There were harshnesses also, but it was better to contemplate the former. The Indian Ambulance Corps was raised in the same spirit. If they claimed the rights of British subjects they must recognise the responsibilities also of that position. The work of the Corps in which the Indian labourers worked without pay was specially mentioned in General Bullers' despatches.

Raja Peary Mohan Mukerji moved a vote of thanks to the speaker, and the Hon. Prof. Gokhale seconded it. Mr. Bhupendra Nath Basu and Mr. Gokhale also spoke. A vote of thanks to the chair brought the proceedings to a close".

I was thus in a manner responsible for Mr. Gandhi's first appearance on a Calcutta platform. It will be seen from the above that even as early as the dawn of the present century the ideas of Satyagrapha and Passive Resistance which were destined to be such potent factors after a generation had already germinated.

The frequent conversations which I used to have with Mr. Gandhi made a deep and lasting impression on me. He was then earning as a barrister several thousand rupees a month out he was utterly regardless of worldliness—"I always make it a point to travel third class in my railway journeys, so that I might be in close personal touch with the masses—my own countrymen—and get to know their sorrows and sufferings". Even after the lapse of thirty years, these words still ring in my ears. *Truth lived is a far greater force than truth merely spoken*.

CHAPTER X

Second visit to Europe—Partition of Bengal—Impetus to Scientific Study

I now made up my mind to proceed to Europe and visit some of the laboratories under renowned specialists so that I might be in direct touch with up-to-date methods of research and imbibe fresh inspiration, which living and personal contact with master minds can alone impart. There was a Government Circular under which a European officer of a Scientific Department proceeding home on furlough was granted certain special concessions in the shape of travelling and halting allowances on condition that he utilised a portion of the study leave for the purpose mentioned above. My colleague J. C. Bose partly because he was a member of the Imperial Service, but chiefly because of the high fame he had won in the field of Hertzian waves was allowed previously to avail himself of this concession. There was some difficulty, however, in relaxing the rigidity of the above rule in my favour, as I belonged to the Provincial Branch of the Education Service. All the same I informed the Director of Public Instruction (Pedler) of my intention to visit European laboratories. A few months elapsed and I heard nothing in reply. One day to my surprise, I was forwarded a copy of a minute by the Governor-General-in-Council over the signature of Curzon, Kitchener, etc., in which it was laid down that a native of India who had shown capacity for original research should not be precluded from advantageous study leave simply because he happened to be a member of the Provincial Service. I now got myself ready for my voyage to Europe; but on the eve of my departure I called on Pedler to express my thanks for all that he had done to facilitate my deputation. In the course of the conversation which followed, he pulled out from a drawer a

note of the "case" he had made out for me. I confess I felt almost embarrassed when I went through it as Pedler had spoken in almost unreservedly high terms about my contributions including my *History of Hindu Chemistry*.

I made the voyage direct from Calcutta to London about the middle of August, 1904, exactly twenty-two years after my first voyage. We had a few English fellow-passengers who got down at Colombo. It was the height of the monsoon season. In the Arabian Sea I had a bad time of it for eleven days or so. I have a vivid, unpleasant recollection of the time as I got very sick and had to lie down in the upper saloon most of the time, and my steward used to feed me while I was in this recumbent posture. As I was the only passenger during this portion of the voyage I had the saloon all to myself. A few passengers joined us at Port Said and Malta and one of them was very lively and humorous. Talking of the foot-ball matches he observed that the physical exercise involved in the game is only confined to the Teams—*eleven* vs. *eleven*: but what of the thousands who watch the games as spectators.[1]

The voyage proved to be tedious and I suffered from diarrhœa, to which I am always prone, during the last fortnight or so. My stomach is very sensitive and unless I get fresh articles of diet, it is upset. Although, as a rule meat, fish, and vegetables are kept in cold storage, they deteriorate somewhat in quality and should be regarded as stale; the fibres get tough and they derange my digestive functions. I began to grow uneasy and even feared that on reaching London I might get worse. I had, however, been barely twenty-four hours at a hotel there when I forgot all about my stomach complaint. Although I have made several voyages to England since then, my experiences on board the ship have

1 Very recently (1926) similar observations have been made by competent authorities; cf. "We watch games instead of playing them". M. L. Jackson, Headmaster, Mill Hill.

been of the same nature and I have always been under the necessity of travelling by the mail steamer from Bombay to Marseilles in order to abridge the distance, or rather, shorten the duration of the voyage.

After a few days' stay in London, I began to get uneasy. Mere sight-seeing had scarcely any charms for me ; indeed during my student career I lived only a few months in this vast city. Those who are accustomed to work several hours in the day in the laboratory, always find time hanging heavily on them when away from it. I therefore began to look about for an opportunity to continue my investigation in some laboratory. J. C. Bose had previously worked in the Davy-Faraday Research Laboratory, and I secured an easy admission into it, thanks to the interest shown by Prof. Crum Brown and Sir James Dewar. My time was now fully occupied and at intervals I used to make visits to the laboratories of the Imperial College of Science and the University College. Dewar had been engaged for several years in the epoch-making experiments on the liquefaction of gases and was at the time engaged in separating argon, neon and xenon from air by aspirating it through cocoanut charcoal, packed in U-tubes immersed in liquid air. I had now an opportunity of watching these.

At the University College Laboratory, Sir William Ramsay explained to me the working of the apparatus designed by him and Dr. Travers for isolating the above-named constituents of atmospheric air. I was thus brought into close and intimate touch with the leading chemists of the day. I spent the Christmas vacation of 1904 at Edinburgh and saw some of my old friends there. The Indian students gave me a warm reception at a meeting organised by them at the Caledonian Hotel and invited Prof. Crum Brown to preside over it.[2] It was indeed an agreeable function. The Royal Society of Edinburgh invited me to a dinner at which Sir James Dewar

[2] I have recently (1931) learned that Dr. Ansari was one of them.

was the principal guest. Prof. Crum Brown in toasting Sir James's health took care to couple my humble name with his. Following in the wake of so distinguished a man I naturally felt rather awkward and nervous but responded as best I could.

From Edinburgh I proceeded northward to Dundee to see my friend and fellow-student James Walker and his laboratory. I then travelled southward to London and broke my journey at Leeds, Manchester and Birmingham, visiting the laboratories at each place and making acquaintance with Professors Smithells, Cohen, Dixon, Perkin, Frankland and other chemists, all of whom warmly received me. On my return to London I continued my work for a month or so and then started for the Continent. Ramsay had kindly furnished me with several letters of introduction to eminent chemists. I put up at Charlottenburg (near Berlin) for a week and visited the celebrated *Technische Hochschule* and the *Reichsanstalt*. Erdman who was Professor of Inorganic Chemistry at the *Hochschule* received me very hospitably and showed me over the place. I also saw Van't Hoff and his laboratory. The great Dutch chemist was then studying "Salzbildung" *i.e.*, the conditions under which the enormous deposits of potassium and sodium salts at Stassfurt had been formed from the sea-salts. Meyerhofer was also working in collaboration with him. Van't Hoff spoke English well and I could therefore converse with him freely.[3] I took the liberty to ask him, even at the risk of being considered impertinent, if it was consonant with the patriotic spirit of a Dutchman to leave his own country and carry on his researches in a foreign land.[4] He replied

[3] I have since then come to know that Van't Hoff was well read in his earlier years in some of the English classics: Byron, Burton (*Anatomy of Melancholy*) and Buckle were his favourite authors.

[4] In a biographical sketch of the great chemist occurs this passage: "It goes without saying that Van't Hoff's migration (to Berlin) met with criticism in Holland. He was pictured as unpatriotic. Even the Dutch *Punch* did not spare him".

that the German Emperor had done everything to facilitate his work, had provided him with a special laboratory suited to his purpose and that he had only to lecture once a week so that he might devote his entire energies to the solution of the problem in hand. Van't Hoff asked me if I knew my countryman, Aghorenath Chattapadhyaya[5] (every letter of which was pronounced with wonderful accuracy). The explanation is simple, when it is borne in mind that Aghorenath had taken his Doctorate in 1875 and in the previous year Van't Hoff and Le Bel had independently and simultaneously propounded the theory of asymmetric carbon. I believe that Aghorenath was awarded the Vans Dunlop Scholarship of the Edinburgh University and proceeded to the Continent to complete his chemical studies. His head was capacious and full of grandiose ideas ; he had evidently come into close contact with Van't Hoff then a young man of only twenty-three and discussed with him the immense potentialities of the new theory. It is to be regretted that this giant intellect was practically lost to India, at least as far as Chemistry was concerned.

Aghorenath on his return to India became head of the Education Department in the Nizam's dominions but unfortunately embroiled himself in party politics and was in the forefront of the Nationalist movement which wanted the Chandwa Railway to be constructed with capital raised in Hyderabad itself. This evidently did not suit the purpose of the meddling political agent who thought after his kind, that not only British India proper but also the feudatories should be reserved for British exploitation. The enraged Resident externed the meddlesome Bengali, often the *bête noire* of the Anglo-Indians of this class, and Aghorenath was compelled to leave Nizam's territory within 24 hours of the issue of his ukase. I remember as a boy reading the *Hindu Patriot* one

5 I need scarcely add here that Aghorenath was the father of the gifted poetess and political leader Sarojini Naidu.

day in which the Editor (Kristodas Pal) lectured to the school master (meaning Dr. Aghorenath) to keep clear of politics.

I also visited Emil Fischer and his laboratory. He had just finished his memorable researches on the purine group, i.e. uric acid and its derivatives, caffeine, xanthine, theobromine etc., and was going on with his investigations on the amino-acids which are derived from the proteins.

From Berlin I proceeded to Berne and Geneva and Zurich. At the last place I went carefully through the polytechnic. Prof. Richard Lorenz was in charge of one of the electric departments; I had already corresponded with him several times as he was the editor of *Zeitschrift für anorganische Chemie* (Journal of Inorganic Chemistry) in which some of my papers had been published. I then directed my course towards Paris *via* Frankfurt am Main. At the latter place the guide showed me a house associated with the memory of Goethe.

The metropolis of France had become almost a place of pilgrimage to me. The very birth of Modern Chemistry is associated with it. Here it was that Lavoisier laboured and placed on a firm basis irrefutable proofs which subverted the phlogiston theory—here it was that a noble band of chemists had one by one rallied round his banner and slowly become converts to his views. The names of Berthollet, Fourcroy, Guyton de Morveau will for ever be mentioned in connection with the illustrious founder of our science.[6] Paris has also been the scene of the labours of Gay-Lussac, Thenard, Caventou, and Pelletier (the discoverers of quinine) and a host of others whose names will go down to posterity as the early torch-bearers of Chemistry. Indeed up till the fifties of the last century the boast of Adolph Wurtz was fairly justified.[7]

[6] Those who are further interested in the subject may consult my *Makers of Modern Chemistry*.

[7] "Chemistry is a Frecnh Science; its founder was Lavoisier of immortal memory".

On arriving at Paris, the first thing I did was to call on M. Sylvain Lèvi, whom I had quoted as an authority on Buddhistic literature in my *History of Hindu Chemistry* and with whom I had corresponded from Calcutta. When I was shown into his room I found the eminent Indologist buried in the *Mahabhasyam* of Patanjali (evidently Goldstücker's edition). It was arranged that the next morning I should meet him at the *Collège de France* where he undertook to introduce me to M. Berthelot, his colleague. I presented myself there at the appointed time and it so happened that within a few minutes Berthelot was entering his laboratory from the opposite side of the quadrangle. When Professor Levi formally introduced me to the great chemist, a peculiar sensation crept over me. Here was I at last in the presence of the illustrious savant, the doyen of the chemical world, who had done more than any other person to clear up the sources and trace the progress of chemical science in the west and who was one of the greatest masters of Synthetic Chemistry.

Berthelot took me over his laboratory and showed me the historic apparatus, preserved in glass cases, he had made use of half a century before in the synthesis of organic compounds commencing with the simplest member of the series, namely, acetylene. At his invitation I also visited him at his residence. As perpetual Secretary of the Academy of Sciences, he occupied quarters at the Institute. Berthelot had with commendable foresight taken care to invite one of his sons who had been for a time at Cambridge, I believe, and who could speak English well, to be present at the appointed time. We thus got on well in conversation, which lasted nearly an hour. He also invited me to be present at one of the sittings of the Academy and introduced me to the President M. Troost, a chemist of eminence, then in his 71st year. The following extract from *La Nature* might prove interesting to some: "Academie des Sciences. Séance du 6 mars 1905—Présidence de M. Troost. Présence d'un savant étranger.—M. le Président

annonce que P. C. Rây, professeur de chimie a Calcutta, auteur des travaux importants sur les nitrites, ainsi que d'une Histoire des chemists hindous, assiste à la séance et lui souhaite la bienvenue."

During my sojourn in Paris I was also much in touch with M. Levi who invited me to an evening soirée and visited me at my hotel and took me over the *Bibliotheque Nationale*. I met here M. Palmyer Cordier, a medical officer in service in French India who had resided several years in Chandernagore and had studied Tibetan. He wrote several treatises on Indian medicine, based on Buddhist literature. I had already made his acquaintance at Calcutta through Pandit Haraprasad Sastri if I remember rightly.

I also visited the laboratory of Moissan who is better known to the general public as the discoverer of carbide of calcium and artificial diamond. The eminent chemist showed me the beautiful octahedrals of the gem under the microscope. I was agreeably surprised to find that Moissan had in his encyclopœdic treatise on Inorganic Chemistry given a full, detailed account of my researches on mercurous nitrite.

I cannot conclude my visit to Paris without giving some account of Berthelot and his phenomenal versatility. For more than half a century he was a conspicuous figure in the chemical world and the titles alone of his contributions occupy one complete issue of the French Journal of Chemistry. He was an indefatigable worker and his knowledge was encyclopædic. One of the greatest masters in Synthetic Chemistry, he may also be regarded as a founder of Thermo-chemistry and in the latter capacity he shares the laurels with his great rival, Julius Thomsen of Copenhagen. He is also an acknowledged authority on the History of Chemistry and his works and memoirs on this subject would occupy several shelves in a library. He also made valuable experiments on agricultural chemistry. He was, moreover, a life-senator and twice a cabinet minister. In the whole range of Chemistry I am not aware of any other man, whose outlook was so wide, whose

tastes were so diversified and whose contributions so varied. His friendship with Renan forms an interesting chapter in the intellectual history of France in the second half of the nineteenth century. No wonder that a unique ceremony was inaugurated in 1901 mainly through the exertions of his former distinguished pupil, Moissan, to commemorate the jubilee of the 50th year of his professorship.[8] The entire French people, headed by their President, participated in the function, and representatives of European and American scientific societies also joined in congratulating him. His funeral was also national.

"Men of science in this country will probably have to wait a long time before they will see the Government and nation pay such a tribute to the greatness of one of their number as was witnessed in Paris on Monday, when the national funeral of M. Berthelot took place at the Pantheon. Here politicians and people have little sympathy with intellectual greatness; and if M. Berthelot had lived in Great Britain instead of France his death would have been mourned by the world of science, but the Government would certainly not have hastened to secure for him the honour of a national funeral, because our statesmen do not know the influence of scientific work on national character and progress; and to them men of science live in a world, for beyond the range of practical politics, where virtue finds its own reward". (Berthelot: born 1827; died 1907) *Nature*, March 28, 1907, p. 514.

On my return to Calcutta I resumed my duties with fresh zeal and ardour. I had rubbed shoulders with some of the great masters of our science and had seen much of the work carried on by them in their own laboratories and I now tried

[8] To celebrate his seventy-fifth birth day and the jubilee of his first appointment in the Collège de France, his colleagues inaugurated a great meeting of congratulation and commissioned M. Chaplin to design a medal in his honour. *The meeting was held in the great hall of the Sorbonne on November 24th, 1901.* Berthelot declined the procession and the military escort offered by the state, and went on foot to the hall. He was received by the president of the republic".—*Journ. Chem. Soc.* 1911, p. 2370.

to emulate their activities as best I could. In this respect I began however to grow uneasy. In England, France, and Germany I found the people, young and old, full of life and energy. If they would once take up a subject they would not leave it half-finished, but would stick to it and see it through ; they would pursue it with a bull-dog tenacity of purpose. In Bengal, however, my sad experience is that even youngmen approach a subject in a half-hearted manner. Any initial difficulty disheartens them, they would like to have their path strewn with roses. An English youth on the other hand, wherever he encounters any hardship, is put on his mettle ; it calls forth his latent energies. The Bengali is cheerless, does not know how to enjoy life. He is dreamy and loves to lead a somnolent sort of existence. The average Bengali reminds one of Tennyson's *Lotus-eaters.*

I was thus thinking rather mournfully of these defects in our national character, when an event happened, which proved to be, as it were, a God-send and which for the time being at any rate infused vitality into the dry bones of Bengal's inert life—I mean the Partition of Bengal by Lord Curzon.

It has often struck me as singular that Bengal proper, Orissa and Assam are by language, if not by race, almost one and the same. The Bengali, Oriya and Assamese languages seem to be derived from the same stock. This is rather striking in view of the fact that big rivers like the Padma and Brahmaputra interpose between West and East Bengal. Moreover Orissa was the scene of Chaitanya's active propaganda in his last days, culminating in the conversion of Raja Rudrapratapa himself. The Vaishnava scriptures composed in Bengali e.g., *Chaitanya Charitamrita, Chaitanya Bhagabat,* etc., as also the Kirtans have helped to polularise the Bengali literature there. As for Assamese any Bengali with a little effort can follow it. In fact, linguistically the three provinces can be regarded as almost one solid whole.

Lord Curzon, as an evangel of imperialism, had observed with dismay that in Bengal a national consciousness was grow-

ing apace ; her literature had already become rich and had acquired the first position among the Indian Vernaculars. Since the days of Ram Mohon Ray she had assiduously cultivated western literature and her sons had become inoculated with patriotic sentiments. All that contributes to the making of a nation was slowly but silently gaining ground. *Divide et impera* was the favourite policy of the Roman Empire-builders, and Curzon was anxious to follow in their wake and borrow a leaf from their history. He had evidently the map of Bengal constantly before his eyes and he deliberately forged a mighty weapon with which he aimed a blow at the unsuspecting Bengalis from the effects of which they will take long to recover. With the cold-blooded wisdom and ingenuity of a Machiavelli, Curzon partitioned Bengal into two halves, taking good care that the north-eastern slice should have an overwhelming preponderance of Moslem population ; he also through his willing tools and lieutenants, held out tempting baits to the latter, or rather their leaders, in order to sever them completely from their Hindu brethren. A wedge was driven through Bengal which would for ever destroy its solidarity and make the Hindu and Moslem communities hostile to each other and care was taken to stab Bengali nationalism in its very heart.

A fallen and depraved people can scarcely afford to think of the future consequences of a measure conceived in subtle cunning. Fortunately for Bengal, her destiny was then in the keeping of able leaders, under the guidance of Surendranath Bannerjee. A wave of protest rose, which day after day gained in volume and intensity ; for the first time in her history her inmost depths were stirred ; youth and age alike felt the impulse. The sleeper was roused from his age-long slumbers and Curzon indirectly acted as the awakener of Bengal.

However, as a Government servant I was precluded from taking any active part in the movement, but from my recess in the laboratory I watched it steadily and I need scarcely add my heart went out to it. This new awakening brought in its train the ideal of studying science for its own sake.

CHAPTER XI.

INTELLECTUAL RENAISSANCE IN BENGAL.

Geistige Wiedergeburt.—Goethe.
(Intellectual Revival).

The genius of the Hindu is eminently subtle and his b of mind is metaphysical. James Mill was by no means gui of exaggeration when he wrote: "The Hindu boys disp marvellous precocity in appreciating a metaphysical proposit which would hopelessly puzzle an English lad." But it v keenly felt that the metaphysical knowledge alone will not (It is indeed strange to find that a little over a century a (1822) Ram Mohon Ray addressed a spirited letter to Lo Amherst, Governor-General of India, in which he entered vigorous protest against the establishment of the Sansk College in the course of which he took occasion to observe:

"We find that the government are establishing a Sanskrit Sch under Hindu Pandits to impart such knowledge as is already curr in India. This seminary (similar in character to those which exis in Europe before the time of Lord Bacon) can only be expected to lo the minds of youth with grammatical niceties and metaphysical disti tions of little or no practical use to the possessor or to the society. T pupils will there acquire what was known two thousand years ago w the addition of vain and empty subtleties since then produced speculative men such as is already commonly taught in all parts India. . . . . If it had been intended to keep the British nation ignorance of real knowledge, the Baconian philosophy would not ha been allowed to displace the system of the schoolmen, which was t best calculated to perpetuate ignorance. In the same manner t Sanskrit system of education would be the best calculated to ke this country in darkness, if such had been the policy of the Briti Legislature. But as the improvement of the native population is t object of the government, it will consequently promote a more libe and enlightened system of instruction, embracing Mathematics, Natu Philosophy, Chemistry, Anatomy, with other useful sciences, which m

be accomplished with the sum proposed by employing a few gentlemen of talent and learning, educated in Europe, and providing a college furnished with necessary books, instruments, and other apparatus".

The value of this letter becomes all the more significant when it is borne in mind that the great reformer, the Maker of modern Bengal, or, for the matter of that, of modern India, was himself a great Sanskrit scholar. It was he who for the first time gave an impetus to the study of the *Upanishads* in Bengal, some of which he rendered into Bengali and afterwards into English. Ram Mohon though deeply imbued with *Vedanta* had a vision of the India of the future in which the study of the physical sciences was to play a conspicuous rôle. Sixty years later Bankim Chandra in his famous novel *Ananda Math* (Abbey of Bliss) did not fail to assign the part which physical science should play in the shaping of India's destiny.[1] That vigorous and robust thinking which characterised the days when the six systems of Hindu philosophy had been elaborated and which has very aptly been styled the *Rationalistic Age* had been for ages a thing of the past. Hindu intellect came to be under the domination of scholastic philosophy and revelled in the dialectics of the schoolmen and a sort of learning was in vogue under which, to quote the happy words of Buckle, "the more learned the votaries were the more ignorant they grew."

Happily for India, Ram Mohon sounded the note of warning, pointed out the direction in the midst of his pitch dark

1 *Vide* preface to the 2nd ed.; extract from a review by the *Liberal*. "Knowledge is of two kinds—external and internal. The internal knowledge constitutes the chief part of Hinduism. But internal knowledge cannot grow unless there is a development of the external knowledge. The spiritual cannot be known unless you know the material. External knowledge has for a long time disappeared from the country, and with it has vanished the Arya faith. To bring about a revival, we should first of all disseminate physical or external knowledge. . . . . English education will give our men a knowledge of physical science and this will enable them to grapple with the problems of their inner nature".

and obscure surroundings with the accuracy of a mariner's compass. Macaulay's famous minute (1835) was in no small measure responsible for the intellectual renaissance of India, however much neo-Hindu revivalists may take offence at some of the passages in it. The victory of the Anglicists over the Orientalists ushers in a new era in the history of modern India. With what zeal the youngmen of Bengal took to the literature of the West need not be described here. Shakespeare and Milton ; Bacon, Locke, Hume and Adam Smith ; Gibbon and Rollins ; Newton and Laplace, opened up a new world before their vision. No wonder that they became almost intoxicated by drinking the new wine and even ran amock so to say.

Fortunately, steadying influences were at work almost imperceptibly side by side. Bhudev Mukherjee and Rajnarayan Bose, though among the votaries who worshipped in the new temple, did not altogether cast off the old moorings. Devendranath Tagore, another alumnus of the old Hindu College, must also be regarded as a product of the confluence of the east and west and a disciple of Ram Mohon Ray ; and this early torch-bearer of the Brahmo-Samaj was deeply imbued with *Vedanta* philosophy.

In the history of nations it is often found that contact of one civilisation with another brings about strange and on the whole beneficial results. Proud Rome did not disdain to learn at the feet of vanquished Greece. Alexandria favoured by her position as the meeting-place of the Eastern and Western nations was the birth-place of neo-Platonism and in her marts besides the exchange of commercial products there was also an interchange of thoughts. Erasmus, the brothers Scaliger, Budd and a host of classical scholars contributed not a little to the unearthing of the intellectual treasures of ancient Greece and Rome, which lay buried for practically a thousand years. The light which burned only dimly in the dark cells of the monasteries was now rendered available to the general public. Then again the writings of the Italian Petrarch and Boccaccio helped

not a little in the making of the English Chaucer.[2] Milton was deeply indebted to Dante and he had also journeyed to Italy to seek inspiration as we gather from his description of the Vallambrosa brook thick with autumnal leaves.

Molière's studies in *belles lettres* meant much Latin, a little Greek and no French. The mother-tongue was of course too vulgar to enter into the curriculum of the refined scholars. The earlier immature productions of the future immortal comedian betrays Italo-Spanish influence but in his masterpieces the genuine Gallic stamp is plainly discernible. History repeats itself. Likewise, the father of epic poetry in modern Bengal—a product of the old Hindu College—had a supreme contempt for his own mother-tongue. He too revelled in Dante and Milton and he composed his first poem—*The Captive Lady* in a foreign tongue. Milton too tried his skill in composing Latin poems, but he soon found out his mistake. Macaulay very pertinently says: "Versification in a dead language is an exotic, a far-fetched, costly, sickly imitation of that which elsewhere may be found in healthful and spontaneous perfection. The soils on which this rarity flourishes are in general as ill-suited to the production of vigorous native poetry as the flower-pots of a hot house to the growth of oaks."

Madhusudan Datta like Milton was not long in realising that if he was to secure a permanent place in literature and in the niche of fame he must compose poems in the language of his nursery and he has left us a priceless legacy in his *Meghnadbad,* although in his immortal epic one can catch glimpses of Homer, Virgil, Dante, Tasso and Milton in the description of heaven and hell and in the delineation of several characters. Even Bankim Chandra, the first graduate of the Calcutta University, who may be regarded as belonging to a

[2] I woll you tell a tale which that I
Learned at Padowe of a worthy clerke:
Franceis Petrark, the Lureate poete
Highte this clerke, whose rhetoric swete,
Enlumined all Itaille of poetrie.

later generation, was under the same glamour and spell when he wrote his first romance *Rajmohon's Wife* in English. But he soon found out his mistake and abandoned the foreign in favour of his mother tongue and wielded his pen with signal effect and earned imperishable renown.

Borrowing does not always mean slavish imitation or lack of originality. As Emerson says: "The greatest genius is the most indebted man. * * * * Great genial power, one would almost say, consists in not being original at all." Again: "Shakespeare in common with his comrades, esteemed the mass of old plays waste stock, in which any experiment could be freely tried". Take *Hamlet* for instance. As a matter of fact an English drama on the subject, possibly by Kyd, was written as early as 1589. In the history of a renaissance it is always found that copious borrowing is co-eval with assimilation of ideas and thoughts and these soon become a part and parcel of one's own national literature.

The development and enrichment of Arabic literature may be cited here as a notable illustration. The orthodox and Umayyad Caliphates are from the intellectual point of view barren. Strictly speaking there was scarcely anything which may be called *literature* in Arabia during this period. Poetry depicting the simple life of the Bedouins forms its characteristic feature. It was however during the Abbasid rule that the many sided life of the Moslems found full expression and vigour in a copious literature which was enriched by wholesale borrowing from Greece. Under Caliphs Mansur and Mamun, Hellenic culture found full scope. The works of Aristotle, Plato, Galen, Ptolemy as also of the neo-platonists Plotinus and Porphyry were translated often from the Syraic versions as also direct from the Greek text. Among the *Falasifa* school (i.e. those who read in the original Greek) the names of Al-Kindi, Al Forabi, Ibn Sina (Avicenna) Al Razi (Rhazes) as also the Spanish philosopher Ibu Rhshd (Averroes) who flourished in the 12th century A.D., stand conspicuous.

"This material expansion (in trade) was accompanied by an outburst of intellectual activity such as the East had never witnessed before. It seemed as if all the world from the Caliph down to the humblest citizen suddenly became students or at least patrons of literature. In quest of knowledge men travelled over three continents and returned home, like bees laden with honey, to impart the precious stores which they had accumulated to crowds of eager disciples, and to compile with incredible industry those works of encyclopædic range and erudition from which modern science, in the widest sense of the word, has derived far more than is generally supposed." Nicholson: *Lit. Hist. of the Arabs.* p. 281. The contributions of the Arabs in the domain of philosophy and science in the middle ages need not be dwelt upon here, nor is it necessary to mention that in mathematics and medicine they are deeply in debt to India.[3]

The Arabs in their palmy days were in turn the bringers of light to mediæval Europe and wielded an enormous influence on Latin scholasticism. A separate chapter may be written on the reciprocity of intellectual debt between Asia and Europe.

If one studies the history of modern Bengali literature from its formative stage under William Carey and the school he founded (1800-25) down to the fifties of the last century, one cannot but be struck with the fact that by far the larger number of books were mere translations from the copious and rich English authors and a few from Sanskrit, Persian and Urdu.

Iswarchandra Vidyasagar's earliest *Vetal Pancha Vingsati* was based upon an Hindi version and his somewhat later and more mature works, *Sakuntala* and *Sitar Vanavasa* (exile of Sita), were adaptations from the Sanskrit masterpieces of Kalidas and Bhababhuti, while his *Kathamala* was based upon Aesop's

3 *Vide*: *Hist. Hindu Chemistry*, 1 Ch. VI. "Indebtedness of the Arabians to India".

Fables, his *Jivancharita* (Biography) was almost a literal rendering of Chambers' *Biography*.

Shakespeare's plays were also translated into Bengali. Akshayakumar Datta was the first Bengali writer of note who enriched Bengali with translations from astronomy and natural philosophy, while his contemporary, Rajendra Lal Mitra, did similar service in the departments of physical geography, geology, zoology etc. Krishna Mohan Banerjee's *Vidyakalpadruma* (Encyclopœdia Bengalensis) to which reference has already been made was a bilingual polyglot consisting of extracts from standard English writers with Bengali translations. This is as it should be. But for North's translation of Plutarch, there would have been no *Julius Cæsar, Coriolanus,* and *Antony and Cleopatra ;* if there were no English version of the Danish writer Saxo Grammaticus, the world would probably have been deprived of the matchless masterpiece of *Hamlet.* The protagonists of our own literature paved the way for their successors. In the infantile stage, fed on the milk of the foster-mother, the child had slowly grown to adolesence and was no longer dependent on extraneous nourishment. The period of borrowing and assimilation was naturally followed by the period of original productivity ; *Allaler-gharer-dulal* (the spolit child) is of striking originality ; being a faithful portrait of the Bengali Society in the fifties of the last century ; in it not a trace of the cumbrous Sanskritic Johnsonian style of some of the older generation of writers is noticeable. Peary Chand Mitra is master of a vigorous, colloquial style as well as of biting incisive sarcasm. He too entered the Hindu College and was classmate of Krishna Mohon Banerjee, Ram Gopal Ghosh, etc. The impact of the West and the East has brought most striking results as far as the intellectual development of Bengal is concerned.

The Brahmo Samaj movement aimed at the abolition of caste-system, the removal of social inequalities and uplifting of women by the spread of education among them. It was altogether democratic in its tendency. The great Hindu

Society, although it did not fully share the Brahmo doctrines and follow the practices, was at heart in sympathy with and could not fail to be leavened by, them.

There was ferment all around. A new world had been opened out ; new aspirations were awakened. Roused from a period of stupor and stagnation young Bengal began to realise that there were immense possibilities in the Hindu nation. The literature of this period breathes lofty patriotism. Political associations and newspapers had also been started to give expressions to the pent-up feelings and ventilate the grievances of a subject people. Schools and colleges were springing up in the interior of the province, mainly through the efforts and initiative of the educated middle classes. All the same, science had not yet secured proper recognition. Botany, Chemistry and Physics were no doubt taught in some of the Government Colleges but science had yet to come into its own. It should not only be cultivated for its own sake and attract votaries who will cheerfully dedicate the best years of their life to its pursuit, but it should also assert its proper place in the literature of the nation, so that its discovered resources may be applied to the requirements of everyday life. It should be an instrument for the increase of national wealth and comfort. It should play a prominent part in the eradication of pests to which man and beast alike are liable. All the advanced nations of the world are in living touch with science and its boundaries are being constantly enlarged. In a word, science has been harnessed to the service of man.

Unfortunately, the Hindu intellect lying dormant and fallow for ages, was overgrown with rank weeds and brambles. Science was introduced into the curriculum of the degree examinations ; but the Bengali youth went through it mechanically without acquiring a real taste for the subject. His one object was to secure a hallmark, which is a passport to a professional career or a clerical appointment in Government departments. In Europe there have been votaries of

science during the last four centuries who have pursued it for its own sake, never expecting to reap any pecuniary benefit and sometimes braving the frowns of the Inquisition. Roger Bacon (1214-1284) was thrown into dungeon for his daring attempts to wrest from Nature her secrets. Copernicus withheld his immortal work from the light of day for forty years lest it should be consigned to the flames and its author himself burned at the stake. The great Kepler once exclaimed: "I may well wait a hundred years for a reader, since God Almighty has waited six thousand years for an observer like myself". The age of Elizabeth, following in the wake of the Renaissance, not only produced a galaxy of poets and brilliant prose-writers but also eminent pioneers of modern science. Gilbert, earning his bread as a physician, whiled away his leisure hours in experiments on electricity. Harvey discovered the circulation of blood and Francis Bacon, although his claims have been exaggerated, may be said to have laid the foundation of inductive methodology.

Paracelsus (1493-1541), whether he be called a charlatan or a sage, did inestimable service to the cause of Chemistry by his boldness in prescribing metallic preparations and thereby giving an impetus to the pursuit of Chemistry. From his time onwards Chemistry began to assert herself and stand on her own legs and was not content with being merely a handmaid to medicine. Agricola (1494-1555) in his *De Re Metallica* which is a complete treatise on metallurgy and mining did much to advance the processes of technical Chemistry.

But in India the state of things was quite different. The Hindu nation had lain in a moribund condition for a thousand years or more. Religion had lost its vitality and degenerated into the mechanical observance of certain unmeaning rites and repeating of dry formulæ and blindly following usages and customs, which may have had some utility a couple of thousand years ago. The Hindu intellect had become dull and benumbed. Our ancestors had lost the power of thinking for themselves and slavishly and blindly followed the injunctions of the

Sastras as interpreted by Raghunandan of Navadwip and his like. The caste-system had taken firm root in Hindu society. Hence it was that a considerably longer period was necessary to bring about a change in the mentality of our nation and awaken the scientific spirit.

Already in the seventies of the last century Dr. Mahendralal Sarkar had made a passionate appeal to the patriotism of our wealthy men and raised considerable sums for his Indian Association for the cultivation of science. He made arrangements as I have stated before, for evening lectures on Chemistry, Physics and later on Botany. Originally it was not meant to be affiliated to the Calcutta University so that anyone on the payment of a moderate fee could attend a course of lectures on Physics and Chemistry. Among the early honorary lecturers were Dr. Sarkar himself, Father Lafont and Tara Prasanna Ray. About the year 1880-81, although I joined the Chemistry and Physics classes at the Presidency College, I attended a course of lectures on these subjects at the Science Association in order to further supplement my knowledge. But somehow or other Dr. Sarkar's attempts were not very successful. Perhaps he was in advance of his time and there was no real craving for the pursuit of science. In those days the privately managed colleges, being poor in resources, could not afford to have a science department and were content to be merely so many "arts" colleges. Those students, who wanted to take science subjects for their intermediate examinations, used to attend lectures on Botany, Chemistry and Physics at the Science Association. Within the last 25 years, however, the private colleges have opened science classes of their own and the Science Association lecture-rooms have become almost deserted.

At the Engineering College or the Medical College or in the several non-professional colleges students attended lectures on some of the scientific subjects simply as a matter of course, because they were included in the curricula for degree examinations. This only shows that there had

been no real thirst for science, which etymologically is synonymous with knowledge. In England on the other hand, a son of the Earl of Cork, the Honourable Robert Boyle, in the middle of the seventeenth century not only made epoch-making discoveries in physical science in his private laboratory but also in his *Sceptical Chymist* laid down the lines on which modern Chemistry is to make progress.

Quite a century later, again, a scion of the great historic house of Devonshire, with a million sterling (equivalent to at least five million of the present time) rusting in his bank, lost himself in the pursuit of Chemistry and Physics in his own privately equipped laboratory and left a priceless legacy to the world at large and earned imperishable renown. Some of his contemporaries, e.g. Priestly and Scheele, struggling with poverty and earning a precarious livelihood and with such apparatus as they could improvise out of broken glass tubes, clay tobacco pipes and troughs from beer-barrels cut into halves, made far-reaching discoveries. But in Bengal at that time there was darkness encompassing all around.

The depth of degradation into which Bengali society had sunk is depicted vividly by a thoughtful writer. When Ram Mohon Ray appeared on the scene, the state of Bengal may be gathered from the portrait delineated by Nagendranath Chatterjee in his biography of the Reformer. Hindu society was then wrapped in Cimmerian darkness.[4] Rank superstition stalked over the land. One might with impunity violate the unwritten moral code and hold his head aloft in the social circle. How in the midst of such environments a man of such transcendent genius, towering personality and far-seeing vision like the great Reformer could spring up is not easy to explain. To give a twist to the mentality of the Hindu mind fed for two thousand years or more on mere metaphysical

[4] K. .P Bandopadhya : *Nababi Amal* (The Times of the Nababs of Bengal).

pabulum was by no means an easy task, nor could it be effected in a day. Among the Brahmins alone there are some two thousand divisions and sub-divisions, none of which will touch food cooked by the other, nor enter into mutual matrimonial relationship. Among the non-Brahmins in Bengal again there is a regular graded social hierarchy, some of which have the privilege of carrying and offering drinking water to those who are above them in the scale. Following the inoculation of the Hindu mind with western ideas at least two generations had to elapse before any tangible result could be achieved in the shape of that steadfast devotion to physical science, which alone can bring forth originality. The soil was rendered morally unfit and therefore had to be fertilised by the application of choice manures before it could be made to yield a crop of a different quality altogether. I have been digressing for some time in order that the reader may follow with advantage the dawn of a new era in Bengal.

CHAPTER XII.

Dawn of a new era—Original Scientific Researches in Bengal—Indians debarred from higher Educational Services.

Jagadis Chandra Bose, after graduating as an ordinary B.A. of the Calcutta University, had been sent by his father to Cambridge to complete his education at the great British seat of learning in 1880. He had the advantage of sitting there at the feet of Lord Rayleigh and of imbibing the traditions of the seminaries on the banks of the Cam. On his return to Calcutta in 1885 he was appointed a junior professor of Physics, his senior colleague being Sir John Eliot. It is a remarkable fact that for twelve years in succession the world knew nothing about him; his students of course highly appreciated the experiments with which his lectures were illustrated. He was, however, by no means idle during this time. His fertile and inventive genius was called into play and he developed wonderful originality in connection with the Herzian Waves. In 1895 he read a paper before the Asiatic Society of Bengal entitled *The Polarisation of Electric Ray by a Crystal.* It appears that he had not then realised the importance of the new line of research he had hit upon. Copies of the reprints of the paper were sent to Lord Rayleigh and Lord Kelvin. Both these great masters of physical science at once appreciated the significance of Bose's work, the former had them reprinted in the *Electrician,* and the latter wrote expressing his wonder and admiration. At this time I also chanced to hit upon mercurous nitrite, the first paper on which was communicated to the Asiatic Society of Bengal, 1895.

Bose, as I said above, had discovered a practically unexplored field and as is the case with a pioneer, he reaped a rich and abundant harvest. One paper followed another in

rapid succession and most of these appeared in the *Proceedings of the Royal Society* of London. His reputation was now well-established. The Government of Bengal sent him on deputation to Europe and when at the meeting of the British Association of 1897 he exhibited his miniature apparatus constructed in his own laboratory at the Presidency College by means of which he determined the physical properties of electric waves, e.g. the index of refraction etc., he almost took the scientific world by surprise. It would be out of place here to follow in detail the subsequent directions of Bose's work on plant physiology, nor do I feel competent to do justice to his epoch-making researches on response in the non-living. I am concerned here with only one aspect—the world-wide recognition of the Indian scientist's contributions, and the moral affect it produced on the impressionable minds of the youth of Bengal.

In a free country the talents of a youngman find ample scope in almost every walk of life, but in a dependency and among a subject people the paths of an ambitious career are all but closed to him. There is no open door for him in the army and the navy. The only field in which the Bengali brain hitherto found full play was the legal profession. Forensic talents of a brilliant order had been developed in connection with this branch. The great-grandsons of those who had founded the modern school of logic (নব্যন্যায়) at Nadia, and carried to perfection the dialectic skill, took to law as kindly as fish does to water. Logic chopping naturally gave place to legal quibbling. The quick-witted sons of the Gangetic delta found in the law courts which sprang up like mushrooms, a congenial occupation. All the best talents were diverted to it. Although the bar soon became overcrowded and starvation stared the junior men in the face, yet the lucky few at the top of the profession could always command high fees and hence the attraction for it. Some twenty years ago in my *Bengali Brain and its Misuse* I sounded the note of alarm and pointed out how the youth of Bengal was seeking economic ruin for him-

self and his fair province by the insane pursuit of one and the same profession to the neglect of several others. An eminent lawyer and political leader of note once bitterly exclaimed from his place in the Bengal Council that the law had proved to be the grave of many a promising career.

It was at this critical period in the history of the intellectual development of Bengal that Bose's achievements found full recognition in the world of science. Its moral effect on the youth of Bengal was at first slow, but none the less most pronounced. A career in the Education department was hitherto almost shunned by young aspirants. As stated before the superior branch in the service was virtually a close preserve for Europeans, barely one or two Indians, distinguished graduates of British Universities, after the most frantic efforts had found admission into it. The educational Service had now been reorganised and a separate, but subordinate, branch was created which was meant for Indians ; the higher branch, the Indian Educational Service, being practically reserved for Europeans. The poor prospects thus held out to Indians had the effect of scaring away brilliant and meritorious men. I may cite here one instance.

Asutosh Mukerji because of his brilliant academic career and early indications of mathematical talent was sent for by Sir Alfred Croft, Director of Public Instruction, who offered him a post as assistant professor, carrying an initial salary of rupees two hundred and fifty per month. This was the maximum amount which the local Government was entitled to sanction. Had he in a moment of weakness or indecision accepted the offer it would have been the marring of his career. In the ordinary course he would have risen to the highest grade of the Provincial service, practically earmarked for Indians, with a pay of rupees seven hundred to eight hundred, after twenty five years' service. But the remuneration is the least part in consideration. As a government servant he would have been gagged from the very beginning and his talents would have found very little scope. That manly and sturdy

independence which characterised his later career would have been nipped in the bud. The comparative freedom from bureaucratic withering influence which our university enjoys would have been reserved as a dream of the future and, not to speak of the College of Science, post-graduate research work, which is the peculiar characteristic of the Calcutta University would not have flourished.

At the Twelfth Sitting of the Indian National Congress held in Calcutta, December 1896, the late A. M. Bose was entrusted with the Resolution namely "that this Congress hereby records its protest against the Scheme of re-organization of the Educational Service, which has just received the sanction of the Secretary of the State, as being calculated to exclude natives of India". In the course of his masterly speech the orator observes:

"And Sir, let me tell the authors of this Scheme that as regards the inauguration of this backward policy in the great Educational Service of the country, they have selected a very inopportune moment indeed. Why Sir, I should have thought that if the gracious words of Her Gracious Majesty's Proclamation, which is the Charter for our rights, are to be belittled, if those solemn words still ring in our ears which granted equal rights and equal privileges to all classes of Her subjects, irrespective of race, colour or creed, are to be violated and to be departed from, then the task would be attempted not in the sixtieth year of Her Majesty's reign which we in India are preparing to celebrate, and the coming of which has filled with joy and rejoicing the mind of all Her subjects in the vast Indian Empire. Let them not select this present year of Her Majesty's beneficent and benignant rule for initiating this retrograde policy. There is, Sir, another reason also which emboldens me to say that they have been specially unhappy in the selection of their time. Why Sir, we know the London *Times* has only the other day borne testimony to the fact that the year 1896 is an epoch-making year as regards the intellectual advance of India. We know that the grand researches of an Indian Professor in the field of invisible light, in the sublime and giddy heights of ethereal vibration, have led to discoveries which have filled the mind of Lord Kelvin, the highest authority which England has produced, literally with wonder and admiration. We have heard of the great and wonderful feat that another countryman of ours has achieved in the last great

competition for the Indian Civil Service. We know of the discoveries which also in the present year of grace have rewarded the genius and the patient toils of another countryman of ours in the realm of Chemical research. The present year then, when India has shown that she has not forgotten the traditions of her glorious past, when the Indian mind has awakened to the consciousness of the great destiny before it, and not only awakened to that consciousness, but has taken the first practical steps towards obtaining its recognition from the generous scholars of the West, surely is not the time or the season for ushering into existence a policy of this retrograde character. We shall not, so far as in us lies, permit, without protest at any rate, the inauguration of such a policy. It is, gentlemen, rather late in the day for this unhappy policy, for this creation of a new crime of colour, for this infringement of the gracious words of Her Majesty's Proclamation.

Gentlemen, there is one other observation I have to make, and that is this. If I have dwelt on the nature of this policy, on what I may venture to describe, with all respect, as its audaciously retrograde and un-English character, if I have dwelt upon that, it is only right that I should draw your attention to a small word that occurs in the sentence I have placed before you. That sentence, as you know, is 'In future natives of India who are desirous of entering the Education Department will usually be appointed in India, and to the Provincial Service.' Perhaps the framers of the Resolution thought that there was a great deal of virtue in that saving clause 'usually'. But I will venture to prophesy, I will undertake to say, what the result of that 'usually' will be. Not that the mantle of prophecy has fallen upon me, or that the gift of the seer has been vouchsafed to me. But, gentlemen, the past is a guide to the future and lightens up the dark places of much that is yet to be. Let us consult that guide. As I have said, my facts specially refer to Bengal, and this is what we find in that Province at the present time. I will not attempt to carry the meeting back with me to distant days. But confining our view to the time which has elapsed since the birth of the Congress, what I find is this :—that within the last twelve years there have been six appointments of Indian gentlemen educated in England, and educated successfully so far as all the tests there are concerned. These six gentlemen who have been appointed to the Education Department in these years, have *all* of them been appointed in India. Not that they did not try to get appointed in England. No, gentlemen, after taking their degrees in the great English and Scotch Universities, after having won all their high distinctions—distinctions not less high than those of their English brethren in the Service, in some cases perhaps even higher—they

tried their very best, they made what I may almost describe as frantic efforts at the India Office to get an appointment from England. But all their efforts were in vain. After waiting and waiting, and after heart-rending suspense, they were told that they must ship themselves off, as soon as they could, to India for the Government to appoint them there. Therefore, although there is that phrase 'usually', you may take it that that will happen in the future, which has in these years happened in the past; and happened too so far as we are aware, in the absence of this retrograde clause now authoritatively laid down in the Resolution. . . . . For all practical purposes you may take it, gentlemen, that 'usually' in the sentence means 'invariably' and the door is now closed against the entrance of our countrymen into the higher branch of the Service.

I cannot venture to detain the meeting any further. I have already passed my allotted limit of time. I will therefore conclude with only one more remark. There is no cause which can be dearer to the members of the Congress than the cause of education. You, gentlemen, are the fruits of that education, of that great awakening of the national mind to which I have referred. And can it possibly be that you will for a moment neglect to do all that you can, all that lies in your power—with the help of our friends in England and in India, with the help of all those, wherever they may be, who look forward to human progress as a thing to be wished for, as a thing to be fought for—to see that your children are not ostracised from those higher branches of the Service with their higher opportunities of educational work and educational progress, to which, up to now, they have been appointed. There are no considerations such as those which are sometimes supposed, be it rightly or be it wrongly, to apply to appointments in the Indian Civil Service, which can have any application to those in the Educational Service of the country. What possible shadow of a shade of justification can there then be for this enlarged and expanded edition of the policy of exclusion? Gentlemen, I believe in the intellect of India. I believe the fire that burned so bright centuries ago, has not wholly died out. I believe there are sparks, aye, more than sparks, that still exist, and only require the gentle breeze of sympathetic help, of judicious organization and kindly care, to burst forth once again into that glorious fire which in the past illumined not only this great continent, but shed its lustre over other lands—into that intellectual life which achieved wonders in the field of literature and arts, in the field of mathematics and philosophy, which produced works which are even now the admiration and the wonder of the world. Fight with redoubled vigour in that cause, and then we may depend upon it that in the Providence of God, righteousness and

CHAPTER XIII.

Original Research—Research Scholars—Indian School of Chemistry.

It has already been pointed out that my humble work was also gradually winning recognition abroad. The foundation of research scholarships by the Government of Bengal also helped the movement to a certain extent. A student who passed the M.Sc. with credit and who showed aptitude for a branch of science could now on the recommendation of his Professor secure a scholarship of Rs. 100/- per month tenable for three years. From 1900 on one scholar was always attached to my department, who, in the early probationary stage, co-operated with me in my line of research but later on was allowed to develop in his own way and strike out a line of his own. In this manner some of these scholars were enabled not only to secure Doctorates on presentation of theses, but also won the blue ribbon of the Calcutta University—the Premchand Roychand Scholarship. These also found ready employment in either the Educational Service or in some of the technical departments of the Imperial branch ; moreover, the fact that their papers began regularly to appear in the Chemical Journals of England, Germany and America acted as an incentive to the pursuit of Chemistry for its own sake.

The first research scholar under me was Jatindra Nath Sen, who won the Premchand Roychand scholarship. He collaborated with me in my investigations on mercurous nitrite. He entered the Agricultural Institute at Pusa and was in due course admitted into the Imperial Branch of the service.

Later on (1905) Panchanon Neogi was the research scholar under me and a little later Atul Chandra Ganguli, who was my lecture-assistant, also joined me. The latter was of robust

be called upon to leave the Presidency College. The intelligence was received with consternation, and Dr. Martin knowing that Dr. Rây is a distinguished Chemist engaged in original research in the Presidency College, after weighing the pros and cons, decided that the idea ought to be abandoned. * * * * * * The Lieutenant-Governor agrees in thinking that no hard-and-first rule can be laid down in the case of several of the officers referred to."—*Govt. Resolution* No. 1244, dated 26-3-1897.

The flower of our youth as I said above was looking to the legal profession for the fulfilment of their aspiration, but the bar was already getting overcrowded and the chances of success in it were precarious. Although from the worldly point of view the Education department did not open up gorgeous vistas, it was now proved that one could make discoveries by steadfast devotion to a branch of science and thereby earn fame.

CHAPTER XIII.

Original Research—Research Scholars—Indian School of Chemistry.

It has already been pointed out that my humble work was also gradually winning recognition abroad. The foundation of research scholarships by the Government of Bengal also helped the movement to a certain extent. A student who passed the M.Sc. with credit and who showed aptitude for a branch of science could now on the recommendation of his Professor secure a scholarship of Rs. 100/- per month tenable for three years. From 1900 on one scholar was always attached to my department, who, in the early probationary stage, co-operated with me in my line of research but later on was allowed to develop in his own way and strike out a line of his own. In this manner some of these scholars were enabled not only to secure Doctorates on presentation of theses, but also won the blue ribbon of the Calcutta University—the Premchand Roychand Scholarship. These also found ready employment in either the Educational Service or in some of the technical departments of the Imperial branch ; moreover, the fact that their papers began regularly to appear in the Chemical Journals of England, Germany and America acted as an incentive to the pursuit of Chemistry for its own sake.

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Later on (1905) Panchanon Neogi was the research scholar under me and a little later Atul Chandra Ganguli, who was my lecture-assistant, also joined me. The latter was of robust

constitution and could labour hard even after his day's duties. He used to begin his appointed task about half-past four in the afternoon and carry it on till late in the evening; during the holidays he was often constantly by my side for hours together. Another young man, Atul Chandra Ghosh, also co-operated with me as a research scholar and rendered me valuable help. He left me to take up an appointment as Professor of Sirdar Dyal Singh College, Lahore, but his life was prematurely cut off, much to my regret. Professor S. S. Bhatnagar who has earned a well-merited reputation in Physical Chemistry has often reminded me that he had his novitiate in chemistry under Ghosh and therefore claims to be my chemical grand pupil.[1]

The output of research thus went on increasing as anyone who would take the trouble to glance through the indexes of chemical journals giving the names of authors will readily find.

About 1904 a young Irishman entered the Education Service and was posted at the Presidency College as an additional professor of Chemistry ; he rendered valuable service to the cause of scientific progress in Bengal. He was an enthusiast and utterly devoid of narrowness and petty jealousy. In his lectures he often used to say that it was a curious anomaly that he—a very junior man—should be officially regarded as "Senior" being a member of the "Indian Education Service" (ante pp. 154-158), though he could learn at the feet of the man ranking as his "junior."[2] He actively and openly sympathised with

1 Professor Bhatnagar in his inimitable humorous vein observes :

"The one atrocious crime which I have committed and for which, I am sure, I have not been forgiven by Sir P. C. Rây, is that I am not his pupil. My defence is that I was not born early enough and hence I happen to be a grand pupil of his, having received instruction in Chemistry from the late Mr. Atul Chandra Ghosh, one of his earliest pupils. (*Presidential address delivered before the Chemistry Section of the Indian Science Congress,* January, 1928).

2 This sort of invidious distinction based upon racial and political considerations found echoes both in the Provincial and Imperial Councils. Cf. "In the Education Department, for instance, Indians were on terms of equality with their English colleagues before the creation of a

Indian aspirations. Under the new university regulations the B.Sc. and M.Sc. degrees had just been instituted and he did his best to improve the efficiency of the laboratory teaching not only at the Presidency College but throughout the colleges of Bengal. He helped Ashutosh Mukerjee with his advice in University matters and made friends with many educationists and politicians in Bengal. The Bengal Chemical and Pharmaceutical Works, the factory of which had recently been removed to Maniktola Main Road and was then under construction, was a special object of affection to him. It represented according to him the best fruits of indigenous talents and enterprise. Unfortunately, his zeal sometimes outran his discretion and he got into scrape on this score. It appears that he wrote a private letter to a member of Parliament criticising Sir Bamfylde Fuller's methods at Barisal and in East Bengal in general. This letter was naturally but injudiciously shown

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Provincial Service. The scale of salary was, no doubt, two-thirds but in other respects they were on equal terms. But they have now been put into a distinctly subordinate position and we see on every side the most flagrant cases, which hurt everybody. Thus we find men of most distinguished attainments in the Provincial Service simply because they are Indians, and men who passed their examinations only yesterday, and who have so far earned no distinction by their work, in the Imperial Service, simply because they are Europeans. I will give only one instance. There is a gentleman here in Calcutta, named Dr. P. C. Rây, a most distinguished man of science, a man who has been honoured by French and German savants, a man adored by his pupils, a man who has been doing original work for the last 20 years and more. But he is still in the Provincial Service whereas young men, fresh from College, without any original work to their credit, men who are admittedly his inferiors, are brought out to this country and put over his head, simply because he happens to be in the Provincial Service and they are brought out as members of the Imperial Service. Now, Sir, this sort of thing hurts not merely the men who are actually affected by it, it hurts the students studying under them. In other departments any injustice done to an Indian official concerns that official only. In the Education Department it affects the students as well; the bitterness passes from the professors to the students, and the whole student community comes to be affected by it.—G. K. Gokhale on "The Employment of Indians in the Public Service" (1911) : *Speeches* (Natesan), p. 448.

to certain other members of Parliament well-known for their pro-Indian proclivities and as ill-luck would have it a member of the India Council, evidently a retired Anglo-Indian bureaucrat, got a copy of it and showed it to the Indian Secretary. In regular course the Director of Public Instruction, Sir Archdale Earle, had to deal with this matter.

Poor Cunningham was sent for by Sir Archdale and severely reprimanded for the breach of official discipline. He was told that he deserved to be instantly dismissed for his conduct and the least and most lenient punishment that could be meted out to him was that he should be at once removed from his sphere of mischief-making. He was transferred to Chota-Nagpur, a backward region and away from the active life in Calcutta where he would be harmless as an Inspector of Schools. He died at Ranchi of a bad type of fever in 1911. A tablet on the wall of the staircase of the Baker laboratory raised by his numerous admirers and pupils attests the affection and regard in which he was held.

In March 1908, a memorable event happened in connection with the Calcutta University. By a charter in 1858, Lord Canning had incorporated the Universities of Calcutta, Madras and Bombay. The jubilee of the fiftieth anniversary of its foundation was celebrated with due eclat and several social functions held and honorary degrees conferred.

At this time I began to feel that I was under an obligation to the public to present to it the promised second volume of my *History of Hindu Chemistry*. Accordingly I resumed my study of some new MSS. of Sanskrit alchemical Tantras which had come into my possession. I was also fortunate in securing the co-operation of Dr. Brajendranath Seal whose encyclopœdic knowledge was equal to the task of contributing the section devoted to the atomic theory of the ancient Hindus. This portion was subsequently re-cast and enlarged by the learned author into a volume entitled *"The Positive Sciences of the Ancient Hindus."*

The following extract from the preface to the second

volume will give the reader an idea of the feelings which agitated my mind when I bade farewell to my self-imposed task, which was indeed a labour of love.

"It is with mingled feelings that I mark the hour of my final deliverance from a self-imposed task which has occupied all my spare time during the last 15 years and more, feelings not unlike those which overpowered the historian of the Roman Empire. The reader will, I hope, forgive me if I venture to give expression to them in the words of Edmund Gibbon himself. 'I will not dissemble the first emotions of joy on the recovery of my freedom. * * * But my pride was soon humbled, and a sober melancholy was spread over my mind, by the idea that I had taken an everlasting leave of an old and agreeable companion.'

"The Hindu nation with its glorious past and vast, latent potentialities may yet look forward to a still more glorious future, and, if the perusal of these pages will have the effect of stimulating my countrymen to strive to regain their old position in the intellectual hierarchy of nations, I shall not have laboured in vain."

Prof. Sylvain Lèvi in the course of his review of the second volume in *Journal Asiatique* observes:

"His Laboratory is the nursery from which issue forth the young chemists of New India. Prof. Rây is an excellent Sanskritist. * * * * he is familiar with the languages of the West and is quite at ease with works written in Latin, English, German and French."

Once more Chemistry claimed me as her own by which I mean that I was at liberty to devote my attention and energy exclusively to the object of my first love. Any one who would patiently go through the list of the contributions from the chemical laboratory of the Presidency College will find that henceforth several of them began to appear under the joint authorship of myself and my pupils as co-workers and this feature began to come into prominence. When another person is taken into partnership the best policy is to repose full confid-

ence in him and to allow him to reap the due share of the harvest gathered. The partner soon learns to identify his interests with those of his principal and works whole-heartedly. Nay more. There are several ways of looking at things. A man who works unaided and who does not care to consult others or accept any one else's suggestions is apt to be crotchety or even possessed with obsessions ; if however, he invites the suggestions of his own employees he can avoid many mistakes. The latter, realising that they are in the confidence of their master, thereby acquire a sense of responsibility, which would not be the case if they were taught simply to carry out the behests of their superiors. In short, the relation between the master and the servant in the latter case grows to be simply mechanical. Of course I am speaking of ordinary men and not of supermen. It should however be remembered that under the shadow of a towering genius or personality men of ordinary or average gifts cannot grow, just as under the shadow of the outstretching branches and ramifications of a gigantic banyan tree vegetation is only of stunted growth. In the world of business too the same considerations apply, and what applies to business would apply more or less to research in the laboratory. A volume might be written on the eminent men of science produced by their accidental contact with a master-mind and the opportunity they obtained thereby of not only catching his inspiration but also of working in sympathetic co-operation with him. The following extracts from my *Makers of Modern Chemistry* will make the point clear.

"Gay-Lussac's friend and co-worker was Thenard (Louis Jacques). Thenard (1777-1857) was the son of an ordinary peasant. At the age of seventeen he came to Paris to study medicine. As his means did not permit his joining a laboratory as a student he asked Vauquelin for a place as a laboratory servant. Thenard rose to fame with the discovery of the well-known compound, "Thenard's Blue". Hydrogen peroxide was also another of his discoveries. He died at the age of eighty as a peer of France and Chancellor of the University

of Paris. Among the poor pupils of Vauquelin at Paris was Michel Eugen Chevreul (1786-1889). He forms practically the connecting link between the founders of Organic Chemistry and many of the present generation of chemists as he lived to be more than a centenarian. His researches on the fatty acids are too well-known to require repetition here".

"Aguste Laurent (1807-53) was the son of an ordinary peasant. In 1826 he became an external student at the School of Mines and in 1831 assistant at the *Ecole Centrale des Arts et Métiers* of which Dumas was professor and in whose laboratory he carried on his first investigations. In 1838 Laurent became professor at the Faculty of Science at Bordeaux. He came back to Paris in 1846 and became assayer at the mint, but his income and opportunity for work were very limited and he was always in straitened circumstances. He died of tuberculosis in 1853. His biographer Grimaux writes of his unfortunate career in this strain: "He spent his life in constant labour in the disinterested investigation of truth, a prey to malevolent critics and coarse attacks. He knew neither fortune nor honour nor even the joy of seeing the truimph of the doctrines for which he had fought without relaxation".

Of course it does not mean that mere contact with a genius or a specialist or an opportunity to work under him will necessarily produce a prodigy. There must be a latent taste for the subject in the man and this potentiality has to be called into play. There is considerable truth in Gray's Elegy:

Full many a gem of purest ray serene,
The dark unfathomed caves of ocean bear.
Full many a flower is born to blush unseen
And waste its fragrance on the desert air.

It should not be forgotten, however, that the receiving apparatus must be attuned to the same pitch, otherwise there would be no response.

The year 1909 opened a new chapter in the history of chemical research in Bengal. In that memorable year some members of the brilliant group of students who were afterwards

destined to play a conspicuous part in notable research took their admission in the Presidency College. Jnanendra Chandra Ghosh, Jnanendra Nath Mukherjee, Maniklal Dey, Satyendra Nath Bose and Pulin Behari Sarkar enrolled themselves in the I. Sc. class ; while Rasik Lall Datta and Nilratan Dhar, who were senior to them by a couple of years or so, were preparing for the B.Sc. examination. Megh Nad Saha, who passed the Intermediate examination from the Dacca College, also joined Ghosh, Mukherjee and their fellow students in the B.Sc. class. Rasik Lall Datta, Maniklal Dey and Satyendra Nath Bose were born and brought up in Calcutta under their paternal roof. Ghosh, Mukherjee, Sarkar, Saha and Dhar, on the other hand, hailing from the countryside were residents in the Eden Hostel attached to the Presidency College and among them sprang up a friendship such as is rarely met with. They shared their joys and sorrows and their common purse. Although as yet scientists *in posse,* there was something indescribable in their character, which drew me to them. The bonds existing between them and me was as subtle as those of chemical affinity. I used to visit them often in their hostel rooms and they were my constant companions in my *maidan* walk in the evenings.

Rasiklal Datta, the oldest, showed remarkable aptitude for Chemistry and, while preparing for his M.Sc. examination, was associated with me in my investigation on the nitrites ; but he soon developed striking originality and submitted a thesis for his final degree examination which was in due course published in the Journal of the London Chemical Society. From 1910 onwards he published several papers in rapid succession. To him belongs the credit of being the first Doctor of Science of the Calcutta University.

Sometime in 1910 a remarkable incident happened resulting in a precious "find". Jitendra Nath Rakshit had gone up for the B.Sc. examination from the St. Xavier's College but was "plucked". He got disgusted with the system of examination in vogue and relinquished the degree-hunting mania to

which our youngmen are so prone. As he could not under the existing circumstances enter an affiliated college, he worked for a time in the chemical laboratory of the National Council of Education. His *forte* lay in Practical Chemistry and glass-blowing. Out of a few bits of rejected glass-tubing he could improvise an apparatus, which hitherto could only be had from a firm in England or Germany after months of anxious waiting. His skill and abilities were brought to my notice by a friend of mine. I at once sent for him and within a short time realised that in him I had got a worker of rare gifts. He was associated with me in the isolation of the amine nitrites. He often used to toil for 9 hours on end—a common thing enough in the cold climate ; but in the trying, stifling atmosphere of Calcutta, with the thermometer often at the boiling temperature of ether, rather a hard task. He too in due course developed a capacity for original work, which secured for him within a year or two admission into the opium department of the Government of India as analytical chemist. His isolation of the alkaloid *porphyroxine* redounds to his credit.[3] He has contributed about 40 papers. His method of estimation of morphine and codeine has found a place in treatises on Analytical Chemistry.[4]

In 1910-1911 I had a unique experience. During the monsoon season a large portion of Bengal in the deltaic area becomes flooded, such portions being on the whole free from malaria ; in fact it has been found by experience that the more an area is flooded, the greater the immunity from this fever. There are however other regions, not subject to floods where big pools of water accumulate for want of proper drainage and

[3] Vide *Journ. Chem. Soc.*, 1919, Vol. 115, p. 455; also *Berichte*, 1926, Vol. 59, (B), p. 2473.

[4] "The Analysis of Drugs and Chemicals" by Evers and Elsdon, 1929 quotes Rakshit at length as an authority on the estimation of the alkaloids morphine and codeine. Rakshit's method of estimation of acetone in presence of methyl alcohol has been mentioned in Thorpe and Whiteley's *Manual of Organic Chemical Analysis*.

when the rains cease these stagnant sheets of water become fertile breeding grounds for mosquitoes and also give off miasmatic exhalations from the decay of vegetable matter. It has always been my custom to spend the dry month of May —a portion of the summer vacation—in my native village. This has enabled me as I have said above not only to indulge my love of rural life but also to come into close touch with my co-villagers and the peasantry all around. It happened however that during that year the monsoon or rather the pre-monsoon showers began much earlier. I was induced to prolong my stay till 15th of June so that I might take part in the prize-distribution ceremony of our school. I started for Calcutta the next day and immediately on reaching there got an attack of fever followed by periodic relapses. This state of things continued for nearly a year. A life-long invalid could not long be expected to resist such renewed attacks on his debilitated constitution. My friends naturally became anxious about my health and Dr. Nilratan Sarkar packed me off to his Darjeeling residence with a prescription containing seven grains of quinine per dose to be taken thrice daily. This change to a salubrious climate was almost the means of saving my life. I had almost forgotten all about this event in my life ; but the opportune publication of a letter at this moment in the Bengali Journal *Prakriti* (Nature) revives the recollection of it. The letter is reproduced below.

Darjeeling,
Glen Eden,
14. 6. 11.

My Dear Jiten,

Your card of the 12th instant has been very gratifying to me. In fact I was about to write to you enquiring of your work. You give me the percentage of 'C' and 'H' of C_3H_7, NH_3, HNO_2 but are silent about 'N' by Dumas' and Crum-Frankland method but I hope it is all right . . . . You may tell Hemendra that his method of detecting and quantitatively estimating methyl ether will find ample recognition at last.

I feel like a disabled General watching from a distance the thick

of the fight and his valiant soldiers marching triumphantly on. By God's grace the year of my illness has been crowned with most brilliant and unexpected results. You must go on giving evidence of the vitality of Indian intellect.

I am very glad to hear that Rasik's work is also progressing well. I hope shortly to hear from him about the isolation of allylamine nitrite and its decomposition product, allyl alcohol.

Last Friday and Saturday the weather was brilliant, warm and sunny. But then it rained incessantly for nearly three days, and since yesterday it has been again getting fine.

I am keeping well. Dhirendra writes me from Germany and is happy in being allowed to take up his thesis for the Ph.D. But I feel convinced that yourself, Hemen and Rasik will prove to demonstration that equally good, if not better work, can be carried on here.

Yours sincerely,
(Sd.) P. C. Ray.

Jitendra Nath Rakshit,
Bengal Chemical & Pharmaceutical Works, Ltd.
91, Upper Circular Road, Calcutta.

I confess the contents of this letter had entirely faded out of my memory and I could not at this distance of time remember a word of it. It helps me also to put in a chronological order the slow evolution of the Indian School of Chemistry.

About this time another youngman was attracted to me; he had passed the B.A. Examination from the City College with Chemistry as one of the subjects. He evinced a liking for Chemistry and enrolled himself as a student of the Presidency College for his final degree (M.A.) examination. His understanding was clear and he soon got a grasp of his favourite subject. He had also another qualification which is rather rare amongst our science graduates,—a sound knowledge of Bengali and English literature and could wield his pen as effectively as the test tube and for this reason has been sometimes of help to me in my literary undertakings. This was no other than Hemendra Kumar Sen. He was closely associated with me in my investigation on tetramethylammonium

hyponitrite and gave singular proof of the mettle he was made of. In analysing the gaseous products of decomposition of this substance he devised methods of his own constructed out of simple apparatus. Sen is all the more entitled to credit as he had to earn his living by tuition and latterly as a part-time lecturer in the City College. His career was brilliant. He secured a first class in the final examination and also won the Premchand Roychand Studentship, which enabled him to proceed to England to complete his chemical education at the Imperial College of Science. There he equally distinguished himself and won the golden opinions of his professors. His thesis for the Doctorate of the London University, which was published later in the Journal of the Chemical Society is of high order.

Another youngman, a fellow student of Hemendra Kumar, also gave an equally good account of himself. He was of a reserved and even taciturn disposition. The truth of the adage, "still water runs deep", is well exemplified in him. Although he came out with flying colours in the M.Sc. examination and did some work conjointly with Sen, he matured rather late. This was Biman Behari Dey. I was struck with the close intimacy existing between Dey and Sen and often used to call them "Hamlet and Horatio" or "David and Jonathan". Dey went to England a couple of years earlier than Sen and carried on his researches in Organic Chemistry at the Imperial College of Science and got his Doctorate in due course. His papers on coumarin condensation mark him out as an investigator of repute.

Nilratan Dhar had by now taken his M.Sc. degree on the submission of a thesis in Physical Chemistry. That he secured the highest place in the examination goes without saying.

Although I always professed Inorganic Chemistry, I had taken care, since taking my Doctorate at Edinburgh, to keep myself abreast of the progress made in Organic Chemistry in its salient points. From 1910 or so I was accustomed to deliver a special course of lectures on Organic Chemistry to

advanced students keeping in view the historical development of the subject. Chemistry was getting so highly specialised and so rapid and gigantic were the strides made in its different branches and aspects that no one could now master more than one and even that only partly.

Take spectrum analysis alone. Since its elaboration by Bunsen and Kirchhoff, Ångstrom and Thalen, de Boisbaudron, Crookes and Hartley had devoted the best years of their lives to it. Since the discovery of radium again by the Curies quite a new branch of Chemistry has sprung up with its life-long votaries and the literature on the subject is already vast. When I was a student at Edinburgh Physical Chemistry was almost in the embryonic stage ; but thanks to the superhuman labours of Ostwald, Van't Hoff and Arrhenius, this branch has also grown to stupendous dimensions ; and a section of it, Colloid Chemistry, already bids fair to grow to appalling stature in the hands of such specialists as Wolfang Ostwald, Freundlich Zsigmondy, Svedburg, Kruyt, Rideal and, last but not least, Jnanendra Nath Mukherjee.[5]

When I was a student at Edinburgh, Physical Chemistry was really in making ; its great protagonist Svante Arrhenius was actually carrying out in Stockholm his experiments on the conductivity of solutions with respect to the electric current almost contemporaneously with my stay in Edinburgh. I well remember how the Swedish chemist in those days was assailed by the conservative school for his heterodox views ; nay ridicule was heaped upon him. In due course his bold theory received acceptance and even the approbation of the scientific world. His scoffers turned out to be his best admirers. Little did I then dream that less than one-third of a century later

[5] The Faraday and Physical Societies held a joint discussion on "The Physics and Chemistry of Colloids and their Bearing on Industrial Questions". *Nature* (November 4, 1920, pp. 327-28) observes :—

"Perhaps the most important paper of the whole discussion, in that it represented a distinct advance in theory, was that by Mr. J. N. Mukherjee".

my beloved pupil, Jnanendra Chandra Ghosh, should go a step further and even modify to a certain extent Arrhenius' law of electrolytic dissociation in *dilute* solution.

By 1910 Physical Chemistry had began to rear its head and claim a recognised position of its own, but even in England few, if any, universities had up till 1900 a Professor or Lecturer on it attached to them. To Nilratan Dhar belongs the credit of being the pioneer and initiator of the study of this branch in India. Not only did he choose it for his own line of investigation but he inspired J. C. Ghosh, J. N. Mukherjee and a few others in its pursuit. Dhar was awarded a State (Government of India) scholarship which enabled him to proceed to Europe and continue his research at the Imperial College of Science and at the Sorbonne. He secured with credit the Doctorates of both the London and Paris Universities on presentation of brilliant theses, which were published in due course. Before his departure for England, Dhar was associated with me in the study of the physical properties of the nitrites and in the determination of the vapour density of ammonium nitrite. He was also, side by side, carrying on his own independent researches.

In 1912 the Congress of the Universities of the Empire held its first Session in London. The Syndicate of the Calcutta University elected me and Deva Prasad Sarvadhikary as delegates to represent it.

During my presence in London I availed myself of the opportunity to read a paper on the vapour density of ammonium nitrite, which created some stir in the chemical world. In 1907 I had shown that ammonium nitrite, which hitherto had usually been described in the text books as theoretically present, could not only be isolated but sublimed in a vacuum. Following up the clue that a substance which like camphor sublimes would necessarily admit of its vapour density being determined, I now tried the experiment. I had been particularly anxious to finish it before I started for England and to take with me the results if they proved to be successful.

Fortunately for me Nilratan Dhar who was then in the making as a chemist was associated with me and another youngman Tincory Dey, who had just taken his final degree in Chemistry. The experiment demanded individual attention and watching for ten to twelve hours at a stretch for close upon two months, but so intense was the interest attaching to it that we forgot all about the duration of time involved and were on tip-toe of great expectation. When Dhar with the aid of his logarithm tables took to calculating the results at the close of every day's experiment I used to tremble with solicitude not unmixed with secret joy.

I read the paper at the Chemical Society before what may be called a bumper house. It created almost a mild sensation among the chemists. Sir William Ramsay warmly congratulated me. Dr. Veley followed in his happy mood.

"Dr. V. H. Veley in welcoming Prof. Rây said he was an illustrious representative of a great Aryan nation which had attained a high degree of civilisation and discovered many chemical processes when this country was but a dismal swamp. Prof. Rây has shown, contrary to text book statements, that ammonium nitrite could be obtained in a stable crystalline condition and volatilised. He concluded by paying a warm tribute to Dr. Rây and his pupils for their valuable researches on ammonium and the amine nitrites. The Chairman also extended on behalf of the Society, a hearty welcome to Prof. Rây endorsing Dr. Veley's remarks".—*The Chemist and Druggist.*

Roscoe who was now an octogenarian did not generally attend meetings; when however he heard of the results, he exclaimed, "Good"! *Nature*, August 15, 1912 in noticing the paper, remarked as follows:—

"Prof. P. C. Rây has added to his success in preparing ammonium nitrite in a tangible form, a further accomplishment in determining the vapour density of this very fugitive compound".

The Congress of the Universities commenced its sessions

with an inaugural address by Lord Rosebery and the subject of the discussion on the first day was opened, I think, by Sir Joseph Thomson and several eminent speakers took part in the discussion which followed. Sarvadhikary who sat next to me urged me to say a few words on behalf of our own University. I hesitated and excused myself by saying that I grew nervous in the midst of a big assembly and as he was endowed with oratorical gifts the speaking affair should be reserved for him, and I was meant to be a silent member or a sleeping parther.

Sarvadhikari was inexorable; he pointed out that the subject was one on which I could speak with authority and without waiting for my reply he wrote my name on a slip of paper and forwarded it to the Chairman. When my name was called I had to obey the Chair and ascend the dais and acquit myself as best I could. I barely spoke for five minutes and my short speech is reproduced below from the Proceedings:—

"I rise, my Lord, to associate myself with the weighty remarks made by my brother delegates from the Colonies, Prof. H. B. Allen (Melbourne) and Prof. Frank Allen (Manitoba).

"The Indian graduate also is placed under peculiar disadvantages when he undertakes to pursue his post-graduate studies in a British University. My Lord, I plead for a more generous recognition of the merits of an Indian graduate; he has, I am afraid, the badge of inferiority stamped upon him simply because he happens to be an India-made ware. I can speak with some degree of confidence about the particular subject which I have the honour to profess, namely Chemistry. Now, of late there have been some brilliant students engaged in post-graduate researches and as their communciations find hospitable reception in the columns of the leading British Chemical Journal, I take it that they are considered as of a fair degree of merit and yet it is a strange anomaly that when the authors of these investigations come over here and aspire for a high British degree, they are made to go through the trodden path in the shape of having to pass the preliminary examinations and this has a depressing and deterrent effect upon the enthusiasm of our youths. I think the suggestion made by a previous speaker that such a scholar should only be made to pass through a probationary period under the guidance of a teacher whom he chooses and if he fully satisfies him

the Colonial or Indian student should at once be allowed to go up for the highest degree on the strength of his thesis alone is a sound one.

"Sir Joseph Thomson has spoken about the rich endowments and scholarships required to encourage a post-graduate scholar. The Calcutta University has already founded a good few post-graduate scholarships and expects to have more. But I beg, however, to remind the representatives of the British Universities present here that we in India have from time immemorial held aloft the high ideal of plain living and high thinking and that with even comparatively poor stipends and bursaries we hope to achieve much.

"My Lord, I do not for a moment claim that the teaching our Universities impart is of the same degree of efficiency as in the sister British Universities—in fact we have much to learn from you—but I beg leave to remind you that inspite of their many defects and drawbacks, our Universities have produced some of the brightest ornaments of our country. The foremost lawyer of Calcutta—a man renowned throughout India for his high forensic attainments—is a graduate of the Calcutta University. Three of the most eminent physicians and surgeons of Calcutta, who have attained to phenomenal success in their professional career are, again, graduates of my own University and last but not least the present Vice-Chancellor of our University, who enjoys the unique distinction of being three times in succession elected to his onerous duties by the Chancellor of the University, who is no other than the Viceroy himself,—I say, Sir A. T. Mookerjee is also a product of the same University.

"My Lord, before I resume my seat I once more plead for a more generous recognition of the teaching imparted in our Colleges."

My brief speech evidently produced a good effect. When the sitting was over, the Master of Trinity—Dr. Butler—introduced himself to Sarvadhikary and me and invited both of us to be his guests when we should visit the University of Cambridge.

The first University I visited was this great ancient seat of learning. Sarvadhikary had preceded me by one day. When I reached Cambridge the Master with Sarvadhikary met me at the railway station and drove me to his quarters. After giving us some refreshments the Master conducted us to a room or rather a small museum of the Trinity College, where many precious relics have been preserved. If my memory serves me right, I think I saw a few pages of the MSS. of L'Allegro; then

there was the observatory or laboratory associated with the astronomical and optical researches of the great Newton.

Dr. Butler was an erudite classical scholar, genial and full of *bonhomie*. He reminded me of the *pandits* of our good old days. He related that in times past when the judges held their assizes at Cambridge, they and their numerous retinue used to take unceremonious possession of the kitchen and scullery of the Trinity College and thus make themselves comfortable and I believe it is still the custom to follow the quaint old practice. Then again when the King comes annually to Cambridge to see the Review he has to be the guest of Trinity. The Master in assigning us the rooms showed us an adjoining one which was being furnished for His Majesty's reception during his forthcoming visit.

The Congress overseas delegates had the option of selecting a number of British Universities to visit and they were received in these as guests. I chose some of the Northern Universities including that of Sheffield. As this was one of the youngest universities and not hallowed with the traditions of Oxford, Cambridge or Edinburgh, very few cared to include it in their itinerary. In my younger days Sheffield was known to me as the seat of Rogers' cutlery, which was then in extensive use in Bengal. The city has now grown to enormous proportions and importance—it is the seat among others of Vickers Maxim & Co. Sheffield had made ample preparations to give a right royal reception to the guests. As ill luck would have it I was the only guest to turn up in the morning. One funny incident I yet remember. When I got down at the station, the porter who took my luggage in the wheel-barrow told me that there was no need to take a taxi as a good many hotels were within a stone's throw. He asked me the name of the hotel where I wanted to put up. I had none to mention, but simply pointed out a modest unpretending one, which I thought good enough for me. "No, this is not for you", said he, and he shook his head. I surrendered myself to his judgment and he took me to a fashionable one near by. As

soon as I announced my arrival at the office of the University I found myself an object of unusual attention. All the professoriate including the Vice-Chancellor (Prof. Hicks) gathered round me and I was shown over the various departments. They met me at lunch as their guest in the very hotel where I was lodging. In the evening there was a splendid function. A grand banquet was held at the Town Hall and the Master Cutler proposed my health and coupled with it that of another guest from Canada. This delegate had arrived sometime in the afternoon or evening. I was thus throughout the day sole recipient of the princely hospitality and this explains why I said that it was my "ill luck" to be the solitary guest. Being of shy disposition I always feel awkward when attending ceremonials.

In London also the worshipful Fishmongers' Company invited the guests to its banquet. This, as also the Vintners' Company, the Merchant Tailors' Company, etc., are immensely rich and their existence dates from a long time past. The cost of these Gargantuan meals appeared to us Indians fabulous. Speaking of a dinner at the Fishmongers' Company, Macaulay writes: "They had got at one time to dining at ten guineas a head" (*Life*, vol. i p. 337). Again: "The first Company for gourmandise in the world"—*Ibid*, p. 336. These companies hold lands in the city and elsewhere, the price of which has jumped up a thousandfold. The *menu* consists of eleven courses or more and each course, commencing with the soup, is followed by a delicious wine, the date of the vintage being given. The wines are taken out of the cellars where they have been matured for half a century or more. Many quaint old customs are observed on such occasions, e.g., the passing of the cup of love. In the good old days, during these wassails they used to get dead drunk and not being in their senses sometimes used even to stab each other. The cup was a huge metallic receptacle filled with wine and each guest was to sip a little and pass it on to his next neighbour as a sign of peace

and good-will. Being a teetotaller I simply brought the cup near my lips and handed it on.

As a delegate of our university to the 250th anniversary of the Royal Society, which synchronised almost with the Session of the Congress, I attended also several of its functions. The Lord Mayor of London gave a grand banquet to the members of the Royal Society and the delegates at the Guild-hall on this historic occasion and I had thus an opportunity of partaking of his hospitality. The King also held a reception at Windsor Palace which was thrown open to his guests. The extensive green lawn stretching as far as the eye could reach and the long avenue of trees naturally called forth my admiration.

Dr. Biman Behari Dey who after taking his M.Sc. from the Presidency College was then preparing for his Doctorate was most attentive during my stay in London and acted as my friend and guide. At this time I received a letter from the late Asutosh Mukherjee, which was fraught with momentous consequences and was full of hopeful augury for the future, in that it foreshadowed the foundation of the University College of Science. The letter is reproduced below.

Senate House,
Calcutta.
The 25th June, 1912.

My Dear Dr. Rây,

It may be in your recollection that on the 24th February last, when the question of the establishment of University Professorships was before the Senate you expressed your regret that no provision was made for a Chair of Science. I assured you, on the spur of the moment, that a Chair of Science might come sooner than you expected. You will be pleased to hear that my prophecy has been literally fulfilled and that what was your ambition and my ambition has been realised. We have founded two Professorships, one of Chemistry, the other of Physics. We have also decided to establish at once a University Research Laboratory. All this we are able to do by reason of the munificence of Mr. Palit, supplemented by a grant of two and a half lacs from our Reserve Fund. The whole position is explained in the statement I made before the Senate last Saturday; a copy is enclosed herewith. I have now great pleasure in inviting you to be the first University

Professor of Chemistry, and I feel confident that you will accept my offer. I need hardly add that I shall arrange matters in such a way that you be not a loser from a pecuniary point of view. As soon as you return, we shall, with your assistance, prepare plans for the proposed laboratory, and begin to build as early and as quickly as practicable. It would be an advantage, if before your return, you could make time to see some of the best laboratories in Great Britain or on the Continent.

I was delighted to find that you had been made a C.I.E. but I feel that it might have come ten years earlier.

I hope you are quite well and have profited by your visit to England.

Yours sincerely,

ASHUTOSH MOOKERJEE.

I have not preserved the reply I gave, but as far as I remember I wrote to the following effect: "I look upon the proposed College of Science as the realisation of the dream of my life and it will not only be my duty but a source of gratification to me to join it and place my humble services at its disposal". On my return to Calcutta I saw Asutosh Mookerjee and promised my whole-hearted support to the scheme of the Science College and signified my intention to join it as soon as it was started. In the meantime Dr. Prafulla Chandra Mitra was deputed to visit all the important laboratories in India with a view to draw up a plan for the College of Science. He was a former pupil of mine and after taking his final degree in Chemistry had gone to Berlin for an advanced course of study in Organic Chemistry and had just returned with his Doctorate, *cum laude*.

In 1912 on my return from England as a delegate to the Congress of the Universities of the Empire, my colleagues and the students were "at home" to receive me. Mr. James in addressing the gathering in the course of his speech observed:

"To give a full and detailed account of Dr. Rây's work as a man of science would take much longer time than suits this occasion. Four main heads are easily noticed. The first is Dr. P. C. Rây's chemical discoveries, the original investigations by right of which he takes his recognised place among chemists, next there is his work on the History of Hindu Chemistry, which is the standard work on the subject and has made known to the world of science and of letters exactly what and how considerable were the attainments of ancient India in Chemistry.

Another achievement of his which ought very specially to be remembered is the establishment of the Bengal Chemical & Pharmaceutical Works, an important and successful industrial enterprise. It is everywhere recognised that one of the greatest needs of the time for all India and for Bengal in particular is industrial development. Dr. P. C. Rây is not a businessman, but a man of science; but where businessmen have failed, he has helped to found a really successful industrial enterprise. And whereas he has contributed to the enterprise the best he had to give, his knowledge and genius for Chemistry, and done so much to make it a commercial success, he has left it to others to draw the dividends. There is one other achievement more which I think is the greatest of all: Dr. Rây has trained and is training in his laboratory, that is in the laboratory of ours here, a band of young chemists to carry on the work he has begun, so that a distinguished French Professor has written of that laboratory as *the nursery from which issue forth the chemists of new India."—Presy. Coll. Mag.*

It made me almost blush to hear such flattering remarks; if I quote them at all, it is only to show that though Mr. James was a literary man, he was fully alive to the importance of the work going on in the scientific departments.

CHAPTER XIV.

INDIAN SCHOOL OF CHEMISTRY (*Contd.*)—RETIREMENT FROM THE PRESIDENCY COLLEGE—THE WORK OF PROF. WATSON AND HIS PUPILS—RESEARCH STUDENTS—INDIAN CHEMICAL SOCIETY.

I went on as usual with my work at the Presidency College. J. C. Ghosh, J. N. Mukherjee and Megh Nad Saha were now in the making. Datta's and Dhar's contributions were being referred to by workers in the same field abroad and this recognition no doubt acted as a stimulus to their successors in our department. More and more advanced students were being attracted, who felt impelled to take up a piece of research in lieu of book-learning. Amongst them Maniklal Dey, F. V. Fernandes, Rajendra Nath Dey deserve special mention. Some of them have been joint as well as independent authors of papers.

In August 1914 the great war broke out. Its effect on our chemical laboratory was instantly felt in the cutting off of supplies of chemicals. Fortunately, the foresight of our veteran Demonstrator, the late Chandrabhusan Bhaduri, had provided an ample supply of chemicals in our store. The accumulations of the remnants of the stock of several years past were considerable and we could draw on them as on the reserve fund of a company in lean years. We were however driven to the necessity of preparing some special reagents for our researches and this proved to be a blessing in disguise as beginners in the field of research were thus initiated into the technique of certain processes in chemical industry.

In 1916 another young man of wonderful energy, pluck and perseverance joined my laboratory. This was Prafulla Chandra Guha. He had just passed the B.Sc. from the Dacca College with Honours in Chemistry. Under ordinary circumstances he would have worked under Professor Watson ; but

as the latter had gone home on furlough Guha found himself nearly stranded. In despair he wrote to me almost in piteous terms saying that his future career was about to be cut short abruptly and expressing an ardent desire to work under me. I welcomed him to my laboratory and thus began a happy and fruitful partnership. Guha was indefatigable in his labours and had a happy, instinctive insight into the mechanism of reactions. I had now taken up the sulphur derivatives of mercury nitrite and he proved to me to be a God-send. In collaboration with him I published two papers, but he was not long in striking out a path of his own. He has made substantial contributions on the Chemistry of sulphur compounds and has pointed out the untenability of the formulæ of some of these as proposed by such veteran predecessors in the field as Freund, Arndt and Busch and has earned their congratulations. In due course he came out with flying colours in his academic career also. He secured the first place in his M.Sc. and three years later his Doctorate and was also awarded the Premchand Roychand Scholarship.

Now a new chapter was about to commence in my career. The Presidency College was the scene of the labours and activities of the best period of my life. For more than quarter of a century I had lived and moved and had my being in its Chemistry class-room and laboratory and I was now called upon to bid farewell to them. Every nook and corner there was reminiscent of my past career. But before I take leave of my College, I must not fail to do justice to the claims of the late Principal H. R. James.[1] He was specially recruited

1 Reuter has recently (1931) announced the death of Mr. James. At my request an ex-colleague of mine at the Presidency College, Dr. Aditya Nath Mukherji, who was in intimate touch with the deceased has supplied me with the following tribute :—

"A genial personality, a finished scholar, the type of an English gentleman, a warm friend and an affectionate comrade, the late Mr. H. R. James will ever be remembered by those—his brother-officers and his pupils—with whom he came into contact. As an educationist, his principle was efficiency and thoroughness : he was not so much anxious to cover a large field indifferently, as to take up a small area

for the Bengal Education Service and was a fellow of Balliol College, Oxford. His scholarship was of a high order and his outlook wide. His aim was to make the Presidency College the premier institution in the land in reality and not merely in name.

I have already said that the research scholarship to a certain extent helped to advance the cause of research. But this statement must be accepted under certain limitations. It is a singular fact that with the exception of one or two almost all the brilliant pupils of mine who have earned a European reputation were non-research scholars. After taking their M.Sc. degrees on the presentation of their theses they stuck to their work without any adventitious help. One who has really imbibed a spirit of research and acquired a true love of a subject cannot be expected to give it up simply because he has not been able to secure a scholarship to enable him to pursue it. Sir William Ramsay once declared that scholarships sometimes have the effect of an offer of bribes. The holder of it, assured of a fixed income for say, three years, takes to research in an easy-going fashion, while his heart is really elsewhere and he is preparing himself for what he thinks to be a more lucrative career. Such a one turns out to be a deserter as soon as an opportunity presents itself. Many such instances have been familiar to me. But one who has got the true call for research

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and cover it well and efficiently. He loved to meet his pupils outside College hours as his comrades on a footing of perfect equality. The addresses which he gave in the College and in the Eden Hindu Hostel were expressions of his warm love and burning enthusiasm. He had an exalted conception of his duty, and as Principal of the Presidency College, he steadily kept before him the ideal which in a sense consumed him, *viz.*, to make that College the premier College in the province. The splendid structures known as the Baker Laboratories and the extensive open grounds which command an uninterrupted view from the College Street to the Chittaranjan Avenue bear evidence of the measure of success he was able to achieve.

Bengal is thankful to have received the services of such a scholar, and only wishes that he had been given larger opportunities for realising his splendid vision."

will cling to it, come what may. If he is not at all well off he will earn his livelihood by private tuition in the morning or evening but devote all his spare time to his work in the laboratory. Emerson very aptly says ; "Has he (man) not a calling in his character? Each man has his own vocation. The talent is the call." He who has no internal vocation for research should not take to it merely because a scholarship is dangling before his eyes.

Rasik Lal Datta, Nilratan Dhar, Jnanendra Chandra Ghosh, Jnanendra Nath Mukherjee were not research scholars at the Presidency College, but all the same they were allowed to continue their work after taking their M. Sc. Principal James was often heard to say that it was a privilege on the part of the college to have such distinguished *alumni* attached to it for sometime to come and used to take a legitimate pride in them and their work.

At this time it began to be noised about that a School of Chemistry was at last in the making. As I have already said the researches of Datta, Rakshit and Dhar were found to be referred to in the chemical journals of England, Germany and America by workers in the same field and this caused me no little inward satisfaction. One day, shortly after my return from England, the Director of Public Instruction of Behar, I think Mr. Jennings, happened to pay a visit to the chemical department. In the course of a conversation on various topics he incidentally said: "I believe you have been instrumental in founding a school of Chemistry". This was perhaps the first occasion on which I had this fact brought home to me and the impression it created has not yet been obliterated from my memory.

Nature was not slow to recognise this fact ; in its issue of March 23, 1916, it observes:

"In connection with the University of Calcutta, 'extension lectures' are being delivered, and that on January 10, by Dr. P. C. Rây, the Dean of the faculty of sicence of the University, is before us. The lecture consists of a brief resume of original chemical researches carried

out in Bengal in the last twenty years, and as an appendix a list of 126 papers contributed to various societies, such as the Chemical Society, Journal of the American Chemical Society and others, is given. Some of these papers are of very considerable value and interest, and indicate enthusiastic work on the part of this *newly created school*, which is mainly due to the example and work of Prof. Rây himself. (The italics are mine). Prof. Rây's first published work was the "History of Hindu Chemistry", written about thirteen years ago, in which he showed there was considerable scientific spirit and also more or less empirical work amongst the ancient Hindus, as indicated in their religious writings, "Tantras", etc., written in ancient Sanskrit. It is, of course, only a man like Prof. Rây, well acquainted with Sanskrit and with a thorough knowledge of modern Chemistry, who could have written such a work. In this book Prof. Rây deplored the decline of scientific spirit in India, and "lamented that the spirit of inquiry had died out amongst a nation naturally prone to speculation and metaphysical studies". He now writes :—"Little did I dream that in the course of a decade or so I should have to revise the estimate I then formed of the capacities of my own countrymen and chronicle that a bright chapter is about to dawn in our life-history". It certainly appears from the present activity of original chemical research in Bengal that a new spirit is abroad, and it is to be hoped that this will quickly spread over the remainder of India, and that the same spirit of research will embrace all the other sciences".

Prof. S. S. Bhatnagar, who now so worthily fills the chair of Physical Chemistry in the University of the Punjab in a quaint style which is his own thus sums up the work of the pioneers in the field of Physical Chemistry in India :

"Amongst the pupils whom Sir P. C. Rây was able to attract was Dr. N. R. Dhar. He was evidently one of those chosen by him for accumulating physical evidence on the structure of mercury nitrite. Dr. N R. Dhar's name first appeared in chemical literature in 1912 along with that of Sir P. C. Rây; and although in 1910, two years previous to Dr. Dhar's paper we find the record of a contribution by Mr. S. C. Mukerjee on the ionisation of mercury nitrite solution as examined by the cryoscopic method, the credit for starting for the first time systematic research-work in Physical Chemistry by an Indian must go to Dr. N. R. Dhar. Since the year 1912 a steady stream of papers on a variety of subjects has flowed from his laboratory. Out of a total of over 150 papers published by Dr. Dhar, it is not possible to determine exactly which constitute his best work. The versatility of his mind has made him travel swiftly and with ionic agility in the field of Electro-

chemistry. . . . . Dr. Dhar's initiation in Physical Chemistry was infectious and following his example J. C. Ghosh and J. N. Mukherjee enrolled themselves in the service of Chemistry as early as 1914-15. . . . . Ghosh's Theory (1918) on the abnormality of strong electrolytes created a stir in the scientific world when it first made its appearance. The hypothesis of complete dissociation of strong electrolytes postulated by Sutherland, Bjerrum and Milner had prepared the field for a warm reception of a theory of complete dissociation. Milner's treatment of his theory was extremely logical but he failed to demonstrate its advantages and the advanced mathematics involved deterred many chemists from attacking the subject. The clarity with which Ghosh demonstrated the superiority of his hypothesis over the ideas current at the time received for it a ready acceptance from such distinguished scientists as Planck, Nernst, Sir James Walker and G. N. Lewis. The theory has been subjected to very adverse criticism by Kendall and Partington on account of certain apparent defects in the mathematical presentation, ... Theories come and go but good ones always open up new fields of research and lead to the consolidation of the ground already covered. From that standpoint Ghosh's theory will always live as it has undoubtedly introduced a change in scientific thought and established the hypothesis of complete dissociation as far as strong electrolytes are concerned. Debye gave a better mathematical treatment of the theory of complete dissociation in 1923.

As a result of the investigations of Bronsted, Noyes and G. N. Lewis, it is now more or less generally accepted that the Milner-Ghosh-Debye theory of complete dissociation gives a satisfactory representation of facts at high dilutions. Nernst has recently drawn attention to the fact that the Debye theory fails entirely to account for the heat of dilution even in simple cases. In fact Nernst has reiterated in the latest German edition of his work his faith in Ghosh's treatment and considers that it contains the kernel of truth, though he argues that a modification of the theory is necessary. . . . . During recent years the laboratory of Dr. J. C. Ghosh at Dacca has contributed considerably towards an interchange of thought between the older and newer Universities of India, and a steady stream of papers mostly on the subject of photochemistry has been forthcoming from his laboratories. He has worked on some of the most important aspects of photochemistry. His recent contributions on the Relative Mass of a Proton and an Electron (1927) are of an interesting character as the experimental value of the ratio $\frac{M+m}{m}$ (where M is the mass of the proton and m that of the electron) is in agreement with the value obtained on Ghosh's equation. The wealth of imagination displayed by Ghosh and

his school coupled with their strong mathematical inclination leaves no room for doubt that work of lasting importance is bound to be produced from Dacca. . . . . The credit of initiating research-work in Colloidal Chemistry in India goes to my friend Professor J. N. Mukherjee of Calcutta. . . . . I crave your indulgence for a few minutes to disclose the account of a private conference which Dr. Ghosh, Dr. Mukherjee and I had in the year 1919 in the University College Chemical Laboratories in London. The subject-matter of our conference was the starting of an All India Chemical Society, with Sir P. C. Ray as its first President. We had a long discussion on the subject and afterwards we took Professor Donnan into our confidence and he fully approved of the plan. On our return to India out of the many plans which we made together and of all of which Dr. J. N. Mukherjee was to be the custodian, the one which he did not forget to carry out was the founding of the Indian Chemical Society. The President and the Secretary constitute the life and soul of a learned Society, and if one of them happens to be a colloidal chemist, the success of the society is by tradition ensured. Take for example the case of the Chemical Society, London, which we all recognise as the parent of our Indian Chemical Society. The first President of that Society was Thomas Graham, the father of Colloidal Chemistry. By a curious chance Dr. Mukherjee, who is the first Secretary of the Indian Chemical Society happens to be the father of Colloidal Chemistry in our country, and may we from this infer that our Society will have as glorious and as distinguished a record as the parent Society in London, early discussions for whose establishment were also held in the University College Chemical Laboratories in London?"—*Presidential Address* (Chemical Section). Fifteenth Indian Science Congress, January, 1928.

The time had now come as stated just before when I was to retire from the Presidency College and join the newly-founded University College of Science. Under ordinary conditions I might have stayed on another year more as under the "55 years' rule" I would be due to retire from Government Service after completing that age.

The address which the students presented to me on the occasion of my retirement and the reply I gave will speak for themselves:

Sir,

On the eve of your retirement from the field of your labours in the Presidency College, permit us, your students of the college, to offer you this humble token of our united love and regard.

Your place in the college, Sir, we are afraid, can never be filled. Men will come and men will go but where else can we possibly expect to find again that sweetness of disposition, that vigour of simplicity, that unwearied spirit of service, that broadbased culture, that wisdom in deliberation and debate which for the space of thirty years or more endeared you so much to your pupils?

Yours was, Sir, indeed no small achievement. Your way of life, with its distinct Indian traits, recalled us to the sweet and simple and manly days of Indian attainment. You have been to us all through a guide, philosopher and friend. Easy of access, ever-pleasant, ever-willing to help the poor and needy student with your counsel and your purse, living a life of sturdy, celibate simplicity, with genuine patriotism, not loud but deep, you have been to us an ancient Guru reborn, a light and an inspiration from the treasure-house of old Indian spirituality.

When the history of India's intellectual attainment in the modern era comes to be written, your name will be mentioned in the very vanguard of progress as the maker of modern chemistry in India. The credit and the glory of being the pioneer in the field of chemical research and of giving the impetus to scientific curiosity in this country is yours. Your "History of Hindu Chemistry" has opened a new chapter of Indian attainment and built a bridge over the abyss of the past whereon our young researchers may shake hands with the spirits of a Nagarjuna and a Charaka.

And you have effected more. The theoretical study of chemistry has impelled you to its application to the natural resources of the country and the Bengal Chemical and Pharmaceutical Works is a living testimony to what un-aided Indian Science and business organisation can accomplish.

In the evening of your life, Sir, when men seek for rest and repose, you have preferred to remain in harness, to make the torch of Science you lighted a generation ago, burn steady and clear! May the College of Science and the cause of chemical research profit long by your untiring zeal! May many more and yet many more groups of eager investigators be sped on this path with your blessing! And may we, Sir, the present students of the Presidency College and our successors, occupy a warm corner in your loving and capacious heart!"

It was really a wrench. Oh! how such a parting reminds one of the final parting from this world amidst the tears and sobs of relations and friends. In a voice tremulous with emotion and almost faltering I replied as best I could.

Mr. President, my esteemed colleagues and young friends :

I hope I shall be pardoned if I fail adequately to give expression to my pent-up feelings—so much I feel embarrassed and overpowered at the kind words, nay, eulogistic terms in which you have been pleased to refer to me. I know I should make due allowance for them, for on an occasion like this you are apt to be overindulgent and forgiving to my many failings and shortcomings and equally prone to lay undue stress upon my good points, if you have been able to discover any. However, let that pass. Gentlemen, I have often regarded it as a divine dispensation that my dear friend and distinguished colleague (pointing to Sir J. C. Bose) and my humble self should have been working side by side for close upon thirty years, each in his own department, cheering each other up, through evil report and good, and I trust that the fire which it has been our lot dimly to kindle will be kept burning on from generation to generation of our students, gaining in brilliance and volume and intensity till it will have illumined the whole of our beloved motherland. Perhaps some of you may be aware that I have never cared to set much store by what are ordinarily called worldly effects or possessions. If, however, any one were to ask me what treasures I have piled up at the end of my career at the Presidency College, I would answer him in the words of Cornelia of old. You have all heard of the story of the Roman matron, how on one occasion a patrician lady had called on her and was displaying with vanity her ornaments and jewels, and how when she asked Cornelia in turn to bring forth her own jewellery, she (Cornelia) begged to be allowed to postpone her exhibits for a time, and patiently waited till the return of her two sons from school. Then pointing to her boys (famous afterwards as the Gracchi), with conscious pride she exclaimed, "These are my jewels." I should also Cornelia-like point to a Rasik Lal Datta, a Nilratan Dhar, a Jnanendra Chandra Ghose, a Jnanendra Nath Mukherjee, to mention the names of only a few representatives of the devoted band of workers who have gathered round me from time to time. Gentlemen, in my article on the "Reflections on the Centenary of the Presidency College", in the current issue of your *College Magazine*, I have tried to bring home to you the noble part which our great institution has played in the making of new India. I hope it will be yours to keep up its glorious traditions.

Gentlemen, it is impossible for me to think that I am severing my connection with the Presidency College; all my cherished associations are entwined round it—every nook and corner of the Chemical Laboratory, even the very brick and mortar, is redolent of fragrant memory. When I further recollect that as a boy I was for four years

a student of the Hare School, which is only an affiliated feeder of the parent institution and that I was a student of the science department of the College for another four years, it will readily be seen that my connection with your College extends to a period of thirty-five years, and it will be my dying wish that a handful of my ashes should be preserved somewhere within the hallowed precincts of your academy. Gentlemen, I am afraid I have gone beyond the limit within which I intended to confine myself. I thank you once more from the bottom of my heart for your fine address, and I assure you that the memory of to-day's function I shall cherish to the last day of my life.[1]

I should not fail here to pay my tribute to the memory and work of the late Dr. E. R. Watson. As Professor of Chemistry at Dacca he inspired a band of young chemists who gathered round him and emulated his example.

"In December 1908 the first batch of students passed the M.A. Examination in Chemistry from the Dacca College. Dr. Watson selected A. C. Sircar, one of the successful candidates, and jointly began doing research work. Two others joined afterwards. This was the beginning of research in Chemistry at Dacca College. Since then up to the time of his leaving Dacca for Cawnpore, three or four research students all along worked jointly with, and under the direction of, Dr. Watson. Many of the pupils of Dr. Watson earned for themselves, by continuing research work afterwards, reputation and fame as Chemical investigators and have made material contributions to the advancement of knowledge. The names of Dr. Anukul Chandra Sircar, Dr. Prafulla Chandra Ghosh, Dr. Brojendra Nath Ghosh, Dr. Sudhamay Ghosh and Dr. Sikhi Bhusan Datta may be specially mentioned here. . . . . Dr. Watson was an indefatigable worker. He was never seen exhausted or tired of work. With a smiling face he would continue working either alone or with the students, from morning till night. His time was generally engaged as below :—7 to 9-30 A.M.—own research work in the laboratory; 10-30 to 12-30—class lectures and official work; 1-30 to 5—supervision of the practical work of the I.Sc., B.Sc., and M.Sc. students; 5-30 to 7 P.M.—supervision and guidance of the work of research students. After that he would very often continue his own research work in the laboratory and make research notes up to 9 or 10 P.M. During the holidays and vacation Dr. Watson's whole time was occupied in his own research work and guiding the research work of the pupils".—*Vide* obituary notes, *The Dacca Univ. Journ.*, March 1927, pp. 138-40.

1 *Presidency College Magazine*, vol. iii, September, 1916, p. 334.

Professor B. K. Singh also began his important studies in substituted quaternary Azonium compounds at Dacca College, which he has since then continued at Lahore and Cuttack with remarkable success.

Fresh recruits to the Indian School of Chemistry were enrolled at the College of Science (*vide* next chapter) which I soon joined on my retirement from the Presidency College. Amongst these, the names of Priyadaranjan Rây, Pulin Behari Sarkar, Jnanendra Nath Rây, Jogendra Chandra Bardhan, Prafulla Kumar Bose, Gopal Chandra Chakravarti and Mono Mohon Sen deserve prominent mention.

In this connection the case of Prof. Priyadaranjan Rây should have special mention. He is regarded as an acknowledged authority on "complexes and valency" as also on Micro-Chemistry, and it is my practice to submit my own papers to his criticism and judgment before they are contributed to the Chemical Societies. My presidental addresses at the annual meetings of the Indian Chemical Society of 1926 and 1929 are based mainly upon his ideas and suggestions. A more silent and unobtrusive worker is seldom to be met with. It was with some difficulty and under pressure that he could be persuaded to go to Europe and give a finishing touch to his attainments. *He* at any rate, does not seem to suffer from the distemper known as "inferiority complex". A Rash Behari Ghosh Travelling Fellowship was literally forced on him. He worked for four months in the laboratory of Professor Ephraim at Berne where he was received and welcomed as a valued colleague whose name and fame had already preceded him. He has already published at least a score of papers, any one of which if submitted to any university would win for him a doctorate. He has not, however, as yet been able to make up his mind to do this.

Events are of two kinds—the silent and the noisy. Priyadaranjan's work comes under the former category. Apart from his other contributions, his recent isolation of an isomer of

thiosulphuric acid is a singular achievement and marks him out as an original investigator of a very high order.

J. N. Rây, after having completed his career at Calcutta, worked for some three years in Professor Robinson's laboratory at Manchester. His joint and independent contributions prove that he has got a thorough grasp of the Chemistry of alkaloids.

Pulin Behari Sarkar, another fellow-student of Ghose, Mukherjee and Saha, after completing his education here, went to Paris and worked for 3 years at the laboratory of Professor Urbain at the Sorbonne on the rare earths. His latest contribution on *chemical homology* stands to his credit as a researcher of promise.

Rajendra Lal De was a research scholar under me at the Presidency College from 1913-16. He is joint author with me of some papers on nitrites and hyponitrites. He has also published in independent capacity some interesting papers on valency. He is now a lecturer in the Dacca University.

Prafulla Kumar Bose is another brilliant worker. His papers on "Benzidine Rearrangement in Heterocyclic series" show remarkable originality and have been referred to at length in the current number of the *Annual Report of the Progress of Chemistry*.

Gopal Chandra Chakravarti was a research student under me from 1922-24 and has published a series of investigations on sulphur compounds in general and synthetic dyes. He was admitted to the degree of Doctor of Science in 1928, and is now a Lecturer in the Indian Institute of Science, Bangalore.

Jogendra Chandra Bardhan, who has been a devoted and indefatigable worker in Organic Chemistry under Professor P. C. Mitter, after taking his Doctorate of the Calcutta University, was awarded a Palit Foreign Scholarship. He studied for three years under Professor Thorpe in the Imperial College of Science and took his doctorate of the London University and later on proceeded to Utrecht where he worked for a short period under Professor Ruzicka. His synthesis of Balbiano's acid is a contribution of unusual excellence.

Mono Mohon Sen, also working under Prof. P. C. Mitter has got his Doctorate on the strength of an important communication on the chemistry of heterocycline compounds.[2]

Bires Chandra Guha, who was a brilliant student at the College of Science and who worked in my laboratory as a research student, proceeded to Europe as a Tata Scholar. He made a special study of Biochemistry under Professor Drummond at the University College, London, and later at the laboratory of Professor Hopkins at Cambridge. Having got the degrees of Ph. D., and D. Sc., (London) he proceeded to Berlin and Vienna to come in touch with some of the masters of Biochemistry. He has lately returned after a very successful career as an investigator. He has published several original papers on his special subject.

Sushil Kumar Mitra, a research scholar working in my laboratory, has given proof of singular originality. His synthesis of ethyl thioaceto-acetate is a remarkable achievement.[3]

In the laboratories of my colleagues Professors J. N. Mukherjee and H. K. Sen, some brilliant researches have been carried on by their pupils.

It was hitherto the custom to contribute papers by Indian Chemists to the journals in England, Germany and America. It was, however, thought highly desirable to start a Chemical Society of our own with a Journal as its organ. Its genesis has been given in the address of Prof. Bhatnagar which has been quoted already.

The correspondence published below will further supplement the above account.

"The President and Council of the Chemical Society send hearty congratulations and warm wishes to the newly formed Indian Chemical Society". (Telegram).

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[2] Professor P. C. Mitter's laboratory has been very active and fruitful of late years. The synthesis of *rubiadin*, *manjisthin* and also *aloe-emodin* deserves special mention.

[3] *Nature* : Aug. 1, 1931, p. 189, also *Journl. Indian Chem. Soc.*, 1932.

INDIAN CHEMICAL SOCIETY 195

"The following letter has been sent by the President of the Indian Chemical Society, Sir Profullachandra Ray, in reply to the above.

92, Upper Circular Road,
Calcutta (India).
October 23, 1924.

"Dear Prof. Wynne,

I thank you very much for your telegram dated the 17th October, 1924. I need scarcely assure you how highly we value the congratulations and warm wishes of yourself and the Council of the Chemical Society, which we shall always look upon as the parent Society. The J.C.S. has hitherto been the only organ of chemists throughout the British Empire, and the Publication Committee have been hard put to it to find space for the ever-increasing number of communications and have often been under the necessity of appealing to authors of papers to abridge them as far as possible. This will explain the necessity of founding the Indian Chemical Society, with an organ of its own.

More than 40 years ago, while a student at Edinburgh, I almost dreamt a dream that, God willing, a time would come when modern India would also be in a position to contribute her quota to the world's stock of scientific knowledge, and it has been my good fortune to see my dream materialise. I have shown in my *History of Hindu Chemistry* that this branch of science was zealously pursued in ancient India and I have now the satisfaction of finding chairs of Chemistry in most of the Universities of India filled by my own pupils, who have also been regular contributors to the J.C.S.

It will always be our endeavour to maintain cordial, nay filial, relationship with the parent society, whose inspiration we shall always highly prize. I can scarcely suppress the feelings which arise in me as I am penning these lines. My mind naturally travels back to the memorable February 23, 1841, when the original members met for the purpose of taking into consideration the formation of the London Chemical Society. I have, further, the gratification to remember that of the original members of the London Chemical Society, I had the good fortune of knowing Lord Playfair (who represented Edinburgh University for some time) to whom I was introduced by my revered teacher, Crum Brown.

Thanking you once more for your good wishes,

Yours etc.,
(Sd.). P. C. Ray."

Vide Proceedings of the Chemical Society (London), dated November 20, 1924.

CHAPTER XV.

University College of Science.

I joined the College of Science in 1916 after the October (Puja) holidays. The discriminating eye of Asutosh Mukherjee, was not slow to recognise that J. C. Ghosh, J. N. Mukherjee, M. N. Saha and S. N. Bose would each and all make a name for himself, if suitable opportunities were afforded them. They were therefore invited to join the new Institution as Lecturers. But a serious difficulty arose at the very beginning.

Under the terms of the Palit and Ghosh deeds of gift the corpus of the endowments could not be touched neither the income accruing from it except to a very restricted extent, and it was expressly laid down that the buildings, appliances, apparatus etc., of the laboratories as also the expenses of their up-keep should be provided by the University. The latter was unfortunately short of funds. In the chemistry department I took inorganic chemistry and my colleague Professor P. C. Mitter, the organic branch and we made the best of the materials available. But the departments of physical chemistry and of physics were practically without any apparatus. Besides, the continuance of the War made it almost impossible to procure any apparatus from Europe.

Asutosh Mukherjee was at his wits' end. There was a surplus fund from the accumulation of leavings from the fees levied from the examinees for the last quarter of a century or so but it was spent in providing the Science College with a local habitation as required under the Palit Trust Deed. He was thus called upon to make bricks without straw. The resourceful Asutosh came to know that the Maharaja of Cossimbazar (Sir Manindra Chandra Nandy) had purchased some costly physical apparatus with a view to opening the Honours Course in physics at his own college at Berhampur.

But the scheme had been abandoned. The Maharaja on being approached, with his characteristic generosity, made over the whole to the Science College. Prof. Brühl of the Engineering College at Sibpur also lent some apparatus and I myself obtained the loan of a "conductivity" apparatus which I badly needed, from the St. Xavier's College.

In this manner, poorly equipped, the two departments of physics and physical chemistry were started. But the professors and lecturers felt handicapped at every stage, nor could they carry on any original investigations of their own. In the history of science as also of literature it has often been found that a man rich in original ideas when made to retire unto himself and thrown upon his own resources develops something remarkably original. John Bunyan, the tinker, devoid of literary culture though he was, occupied his idle years in Bedford jail in writing his immortal work, *The Pilgrim's Progress*; Newton in the year of the great plague when only 23 years of age, was compelled to leave his haunt at the Trinity College and retire to his native place at Woolsthorpe near Grantham and there without the use of his instruments elaborated his theory of Gravitation.

If I may compare great things with small, the formulation of "Ghosh's Law" has a similar history behind it. Deprived of the use of apparatus he shut himself up in his room in the College of Science with volumes of *Zeitschrift für Physikalishe Chemie* and other Journals of Physical Chemistry scattered about him, he tabulated the enormous data on "conductivity" accumulated in their pages and by a sort of happy sagacious intuition as it were arrived at the equations which at once excited the attention and admiration of the scientific world. Megh Nad Saha who had developed talents of a high order in the domain of mathematics and astro-physics found himself under a similar sad plight. He too at first writhed in agony, as it were, as he could not for want of suitable instruments do research work in experimental physics. All the same he began contributing a

series of memorable papers to the *Philosophical Magazine, Journal of Physics* (America), *Proceedings of the Royal Society*, etc., culminating in the elaboration of what is known as "Saha's Equation". Meanwhile Asutosh was making desperate efforts to secure an adequate grant from the State. But the fates were not at all propitious. It has been the custom in British India —a custom which has almost the sanction and validity of an unwritten law—that whenever a public-spirited citizen comes forward with a rich endowment to found an educational Institution, the State supplements it with an equal or substantial amount in the shape of a grant-in-aid. It is only necessary to cite two particular instances as apposite to illustrate my case. The Institute of Science at Bangalore which owes its existence to the munificent benefaction of the late J. N. Tata, has a yearly grant of Rs. 150,000 from the Government of India. But political considerations swayed those among the powers that be, who were responsible for the educational policy of the Government of India. Mr. (now Sir Henry) Sharp was the Educational Secretary. He was Director of Public Instruction under the regime of Sir Bamfylde Fuller after the partition of Bengal and was the right-hand man of that reactionary ruler. The boys of the Serajganj High School had incurred his wrath by crying "Bande Mataram" (Hail Motherland!) and giving vent to other patriotic outbursts. Mr. Sharp and his Chief were determined to punish the obstreperous lads by disaffiliating the school, which according to their point of view was a hot-bed of sedition. But the Syndicate of the Calcutta University refused to be a pliant tool of their policy. Sir B. Fuller got furious at the impertinence of the 'varsity dons. He wrote to the Viceroy, Lord Minto, threatening resignation unless the recalcitrant body was compelled to eat the humble pie. Lord Minto who had often been compelled to give a *carte blanche* to the "sun-dried bureaucrats" though much against his will, had yet the traditional instincts of an English nobleman. He

not only refused to interfere but took Fuller at his word and accepted his resignation.[1]

Mr. (now Sir Henry) Sharp evidently had not forgotten the sunb which he and his Chief had received. During the viceroyalty of Lord Hardinge he was translated to the India Government and was made Education Secretary. Now was his opportunity to settle old scores. He knew well that the one man who had guided the policy of the senate and the syndicate during the stormy days following in the wake of the partition was Asutosh Mukherjee. Sir Henry Sharp therefore stood against Asutosh and his favourite College of Science. It is noteworthy that at first Lord Hardinge was favourably inclined towards the latter ; in fact, in recognition of the princely benefaction of Taraknath Palit, a Knighthood had been conferred on him but somehow or other Sir Henry gained his ear and his mind was changed. It was also rumoured at the time that Lord Hardinge had knit his brow over the clause in the deed of gift that *none but Indians should be eligible for the*

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1 *Cf.* "The Fuller difficulty came to a head and into full public view in July (1906). The boys of certain schools at Serajganj had been guilty of violently unruly conduct in the town, and the Lieutenant-Governor had officially applied to the Syndicate of Calcutta University to withdraw recognition from the schools. The Government of India pointed out to him that if he insisted on University taking action, result would be acrimonious public discussion in which partition and administration of new province would be bitterly attacked, and they thought it most desirable to avoid such contingency, and would prefer to rely upon New University regulations to deal with political movement in schools. For these reasons they suggested withdrawal of his request to University. The Lieutenant-Governor asked that either these orders should be re-considered, or else that his resignation should be accepted. Lord Minto was quite alive to the objection against changing a Lieutenant-Governor in face of agitation, but it became every day more evident that the administration of the new province was unreliable and might lead to further difficulties. If we persuaded him to remain we should run the risk of having to support him against all criticism. So the resignation was accepted. I telegraphed concurrence without delay."—Lord Morley : *Recollections*, vol. ii, p. 184.

professorships.[2] When he came down to Calcutta in March, 1915, his presence was taken advantage of and the Convocation for the conferring of degrees was held at the Town Hall. In the speech which he delivered on the occasion he pretended to be practically ignorant of the magnificent buildings which had almost been completed and in which was located the College of Science.[3] The attitude of the Imperial Government somehow or other underwent a change and it became abundantly clear that no help could be expected from that quarter.

It is again a strange commentary on the "benevolent" intentions of our rulers that when Gokhale brought his compulsory Primary Education bill before the very Assembly over which Lord Hardinge presided, Sir Harcourt Butler, the Education Minister, gave it short shrift on the score of want of funds. Poor Gokhale died almost broken-hearted at the treatment accorded to the one object to which he had dedicated the latter days of his life.

That the Government of India has been actuated by political bias in withholding financial aid from the Science College is proved by its generous attitude towards two other sister institutions in the southern and western Presidencies respectively. The explanation is not far to seek. Both these institutes were staffed, managed and controlled entirely by the British element. The Indian was there but more or less in a subordinate capacity and drawing poor pay. The Bangalore Institute on which a capital expenditure of about a crore of rupees has been incurred and which boasts of an annual income of 6½ lakhs of which 1½ lakh is the contribution of the India Government is not regarded as much of a success,

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[2] It is scarcely necessary to remind the reader that the reason for this clause is to be found in the virtual exclusion of Indians from the higher branch of Educational Service as has been stated before.

[3] I am not fully aware of the dispositions you propose for the utilisation of these donations or of the Rs. 12,000 a year of Imperial grant which is to be expended on the upkeep of your University Laboratories. —**Lord Hardinge** : *Convoc. Add.*

and public opinion throughout India has been roused against the methods under which it is conducted. It affords on the other hand a strong proof—if proof at all were needed—that merely filling the top appointments with princely-paid Europeans does not necessarily conduce to the success of an educational institution.

Professor Megh Nad Saha, who, as a member of the Quinquennial Review Committee of the Bangalore Institute of Science, had a unique opportunity of arriving at a correct estimate of its working has recently observed:

"It has not served the purpose for which it was called into existence by the late Mr. Tata and Dewan Sir Seshadri. There are many contributory causes but one main reason seems to be its location and its isolation. An Institute of the kind that exists in Bangalore should have been near a great industrial city. For then alone would there have been opportunities for its members and workers to put their theoretical knowledge to practice. As it is, I am certainly aware of the fact that most youngmen who undergo training there rush up either to Calcutta or to Bombay in search of jobs.

The second reason is that inspite of the fabulous salaries paid to the past and present Directors and heads of departments the Institute has not been able, except probably in a few solitary instances to attract or retain in its service men who can inspire confidence or put life into the work of the Institute. There is no justification for giving a fabulous salary to a Director for purely administrative work.

The third reason for the Bangalore Institute being a failure is the method of recruitment to its services. It is very faulty and the salaries paid to the junior staff are very inadequate.

* * * I will cite to you a parallel case and quote to you some facts and figures. Take the case of the National Physical Laboratory at Teddington near London, one of the biggest and most famous Science Institutes in Great Britain. Its Director gets £1,200 a year and the most junior scientific workers, mostly new recruits, in most cases £240 a year. The ratio thus obtained between the emolument of the Director and his lowest paid assistants thus comes to about 1 : 5 But here at Bangalore the Director gets a salary of Rs. 3,500 per month which corresponds to about as much as £4,000 per year,[4] whilst his assistants or the research

[4] Professor Saha evidently forgot to add that the present Director was drawing all along an extra Rs. 2,000 a month *i.e.*, altogether

workers get about Rs. 150 per month or £120 a year. The ratio in this case works out to 1 : 30. You will thus see that out of the income of the Institute a considerable sum is all spent away on its Director and the professors and there is no money left for the younger and really promising workers. I feel so far as this Institute is concerned, there ought to be more research assistants, and every one of them ought to be paid much more handsomely so that they can really devote their lives to the problems they set out before themselves to solve. The pay of the higher posts ought to be cut down to the same level as those of the professors in Indian Universities."

Sir C. V. Raman who was a member of the Pope Committee and who is also a member of Council of the Institute has expressed his views in still more condemnatory terms.

"The failure of the Indian Institute of Science at Bangalore and of the Forest Research Institute at Dehra Dun to produce scientific results proportionate to the colossal sums of money expended upon them should be a warning to our legislators in this respect."

The Royal Institute of Science at Bombay which also owes its existence to the munificent benefactions of the citizens of that city enjoys a most liberal grant from the Government The total contribution from the Public benefactions amounts to Rs. 24.75 lakhs and that by Government to rupees 5 lakhs. The capital expenditure incurred was rupees 22 lakhs and one lakh was set apart for scholarships. This would leave a balance of Rs. 6.75 lakhs with the Government, the interest of which at 3½ p.c. would come up to Rs. 25,000/-. The annual expenditure being rupees 1.5 lakhs, it is evident that the annual contribution from Provincial funds amounts to Rs. 1.25 lakhs on an average. Thus, besides having contributed substantially to the capital expenditure (Rs. 5 lakhs) the Government of Bombay makes a liberal annual contribution to the Institute. This is in marked contrast to the niggardliness shown towards the University College of Science, Calcutta. Enlightened public opinion, however, condemns it as a failure as the recent discussion in the Senate of Bombay University goes to prove :

Rs. 5,000. On the expiry of the five years' contract he has been serving on the statutory pay of Rs. 3,000 a month plus Rs. 500.

"There were points in the discussion that ensued on the proposals of Dr. Viegas and the amendment of Mr. Gokhale which should not escape public attention." * * * *

* * * "So very ill-defined and inadequate is the control of the University authorities over the Royal Institute of Science that those who direct its affairs are a law unto themselves and Government are notoriously indifferent to the public disappointment with the achievements of the Institute. It was never meant by those public benefactors who helped to call it into being that it should degenerate into doing the work of second-grade colleges."—*Bombay Chronicle*, Aug. 25/30.

It is not quite correct to say that only "the work of second-grade colleges" is done in the Institute. As a matter of fact post-graduate teaching to a certain extent is imparted. But the bitter and loud complaints seem to be justified.

It is never for a moment suggested that the Indian is superior to the European in intellectual powers. The explanation of the signal failures is to be sought for in another direction. As the late Mr. G. K. Gokhale often used to say: "the competition lies between third rate Europeans and first rate Indians."

Another reason why the Science College is looked upon with no friendly eye, nay with positive displeasure by the Government, is that the Institution owes its origin to Indian initiative, a circumstance that does not fit in with its policy. Everything calculated for the good of the country must emanate from the fountain head of beneficence—the paternal bureaucracy.

Asutosh was thus called upon to shift for himself as best he could and what little could be spared from the surplus of fee-funds was regularly earmarked for the equipment and upkeep of the laboratory. A portion out of the savings of the Palit and Ghosh endowments has also been utilised for the same purpose. Altogether more than 24 lakhs of rupees have been thus spent from these sources.

In order, however, to meet the requirements of an up-to-date Science College new departments had to be added and thanks to the second Ghosh Endowment and the Khaira Endow-

ment of about Rs. 6 lakhs (1921) four more chairs of Applied Physics, Applied Chemistry, Physical Chemistry and Wireless Telegraphy respectively have been recently founded. When the original building was planned there was no provision made for these additions and already we are pinched for space; there is over-congestion and no adequate accommodation can be found for the workshops in connection with them. Moreover, for want of funds these departments are ill-equipped and to a certain extent starved and paralysed in activity.

At the recent (1926) Congress of the Universities of the Empire to which I was deputed as a delegate, and which was held at Cambridge under the presidency of the late Lord Balfour, when the first day's proceedings opened, the subject of the discussion being "The State and the University" I felt called upon to give expression to my feelings in these words:

"I did not come prepared to speak on this subject but as I find our High Commissioner (in whom I recognise one of my former pupils) is absent on account of illness and some other members, too, I venture to appear on this platform, where I consider it a privilege to say a few words.

In 1912 at the first Congress of the Universities of the Empire, I was called upon to address the Congress; so I am not in a strange position and I believe our present Chairman himself presided on one of those occasions.

My principal object in speaking to you today is to present to you our unfortunate position in Bengal. I hope the weighty words of wisdom fallen from the lips of your honoured President who is also Chancellor of the Universities of Oxford and Edinburgh, will receive due and careful attention at the hands of the Government of India as well as of Bengal.[5] You know how the political reform of 1919, the Montagu-

[5] Lord Balfour in the course of his inaugural address observed :—

"Modern education was very expensive compared with the education even of 100 years ago or less. The scientific side alone was enormously costly in these modern days. We could develop what our forefathers had done only by the very expensive methods which modern apparatus inevitably threw upon every institution which carried out its work properly. If the State were asked to subscribe large funds there would always be a natural and pardonable instinct on the part of the State to control and supervise the working of the Institution which

Chelmsford Scheme has affected the universities of India, specially that of Bengal. The Universities have been provincialised by that Scheme. When we of the Calcutta University ask the Government of India to help us they refer us to the Government of Bengal; while the latter in its turn takes shelter behind the Meston Award—we are thus placed on the horns of a dilemma. As for private munificence for research work we have a splendid example in the Bangalore Institute of Science, which owes its existence mainly to the generosity of the late Mr. J. N. Tata of Bombay. Bombay is the land of millionaires and multi-millionaires. Though Bengal is not fortunate to claim many millionaires as her sons, we have not been entirely barren; our College of Science owes its existence to the large-heartedness of two of Bengal's great sons, the first being Sir T. N. Palit, who gave away fifteen lakhs of rupees shortly before his death, which would represent £100,000 sterling. He was only a lawyer and had to deprive his children of their dues to do it, for he practically gave away everything he owned for the foundation of the College of Science.

He was followed by another distinguished citizen also a lawyer, the late Sir Rash Behari Ghosh, one of the foremost and most talented men in the forensic line. He gave away some £150,000 practically also everything he owned, for the benefit of higher education in science. We have had every help from the Indian quarter and the College of Science represents altogether rupees sixty lakhs.

But here comes the tragedy of the whole thing. Whenever we approach the Government of India or that of Bengal, as I have already said, we are told that there are no funds to spare though when grandiose Imperial Schemes arise money flows like water. I have had occasions to criticise the niggardly parsimony of our Government. We are treated as so many Oliver Twists. I can only hope that the weighty words we have just heard will be broadcasted and even sent by Reuter—at any rate a summary of it—and by the next mail the whole of the speech will be sent to the papers and will be read and digested in every part of India, because it is the most important part of the British Empire

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they were doing so much to support. It was natural but it was extremely dangerous. He did not think that in the older Universities in England there was any probability of that danger becoming menacing to any serious extent. They had received assistance from the State in this country but their traditions were deeply rooted, and he did not think there was any serious symptom of any Government attempting to interfere with University autonomy which whether well or ill exercised was at the worst far better than State control."

and there is no reason why unification of the higher branches of science should not be pursued there as anywhere else.

I would specially draw attention to one fact. The great Indian nation which I represent was pre-eminent in the glorious days of the past. Max Müller somewhere says that if the Hindus had done nothing else but presented the European world with the symbolic notation and the Arabic numerals—they are not Arabic except that the Arabs acted as intermediaries—the debt of Europe would have been unrequitable. The Hindu has great potential abilities and this great university hallowed with the traditions and prescriptions of ages does not need to be told of it. It has ample proof of the Hindu intellect and what it is capable of, if properly encouraged and nourished. I have only to cite the instances of a Paranjpye, a Ramanujam, a Jagadis Chunder Bose—all of whom were in the seminaries on the banks of the Cam.

I consider I have a double right to speak. First, not only because I had already once before spoken under the auspices of our eminent Chairman but because nearly half a century ago I was for six years a student of one of the great universities of the North of which your distinguished President also happens to be the Chancellor. To use the language of a chemist, I would say, I am linked to him by double chemical affinity.

I hope that the Government of India, or that of Bengal whichever it may be, will now come forward and give us substantial help for the University College of Science. I have calculated that we have only received two per cent. help from the Government, whereas 98 per cent. has been contributed by our own people."

* * * * *

I should be doing less than justice to myself if I rested here by throwing all the blame simply upon the shoulders of the Government of India ; a considerable part of it must be shared by my own countrymen to whom urgent appeals have been made for help. The noble example set by Palit and Ghosh, who gave away the major portion of their life's earnings for the cause of science has not been emulated by others. I have dwelt elsewhere upon this aspect of the misfortune of Bengal in failing to enlist the sympathy of the trades-people, businessmen and commercial magnates in general for public good. But the educated community as a class has hitherto turned a deaf ear to our cry for succour and has been noto-

riously parsimonius. The "Lions of the bar," judges of the High Court and district courts ; other judicial and executive officials ; high functionaries such as Accountant Generals and *Secretarial* officials not to speak of the Ministers and members of the Executive Council of the province, who unblushingly draw Rs. 64,000/- a year—who at any rate owe a debt of endless gratitude to their own *alma mater*, have hitherto only been conspicuous in their selfish pursuit of gains and making their pile. In England it is a regular feature for the old alumni of the universities, who have been successful in life to shower donations and gifts upon their *alma mater*.

I need not pursue further my account of our infant Institution which has passed its stage of apron strings and has just stepped into its teens. My young colleague Prof. Raman (of *Raman Effect*) is a host in himself.[6] Suffice it to say that if this temple of science had produced only a Raman and nothing else it will have amply justified the high expectation formed by its Founder who, alas, is no longer in the land of the living. His colleagues D. M. Bose, P. N. Ghosh, S. K. Mitra, B. B. Rây and others have made notable contributions in their respective branches. In Applied Mathematics again Dr. Ganesh Prosad and his successors S. K. Banerjee, N. R. Sen and Dr. B. B. Dutt have also made their mark.

It will thus be seen that within the very short period of its existence—barely a decade—the College of Science in spite of the drawbacks referred to above has been in a position to give as good an account of itself as any similar Institution elsewhere.

[6] This was written before the award of the Noble Prize.

CHAPTER XVI.

Use and Misuse of Time.

"Time is infinitely long, if we use it fully most things can be got within its compass."—Goethe.

"The passing of the hungry moments from sunrise to the deep profundity of night with its promise of another dawn avaricious for new labours, cannot be picked apart."—Mussolini.

I have often been asked of late years if I have not taken leave of my laboratory and my favourite science; or, at any rate, if I have not been neglecting both. People are quite justified in making this query. Ever since 1921 I have taken a prominent part in spreading the message of khaddar and national education and have even been drawn into quasi-political movements. I have had to preside over several district conferences, as well as conferences organised by members of the so-called *depressed classes*. Over and above all this, I was called upon to place myself at the head of several relief operations in connection with the Khulna Famine of 1921 and the North Bengal Flood of 1922 etc. A rough calculation shows that I have travelled throughout the length and breadth of this vast continent several times over and have covered at least 200,000 miles during the last ten years. Then again, as I have elsewhere stated, I made my fourth voyage to England in 1920 and the fifth in 1926.

It was, as it were, as an apologia for my own mode of life that I recently delivered a lecture to a group of youngmen on "The Use and Misuse of Time", with Cowper's well-known lines[1] as the text, particularly with reference to how much a

1 "The lapse of time and rivers is the same:
Both speed their journey with a restless stream;
* * * * *
But time that should enrich the nobler mind
Neglected, leaves a dreary waste behind."

man can do if he strictly follows a routine drawn up by himself. I am convinced that a man can multiply himself ten times, if he does the right thing at the right time. During my several tours in England and on the Continent of Europe I always took care to have my breakfast arranged at 7 or at the latest at 7-30, even in winter, so that I should have the rare luxury of enjoying an hour or two of reading before I went out. Formerly I could not read while travelling by mail trains as the jerking motion strained my eyes. But of late I have so accustomed myself to this mode of travel as to be able to read almost an hour at a single stretch. When I have to arrange my tour programme the first thing that I look to is an assortment of select books in big type. When I am in the Mofussil, *i.e.* out of Calcutta, I am naturally besieged by visitors of every description and I am *at home* to them ; but from noon till three—generally the hottest part of the day—scarcely any visitor would call, and then I shut myself in and have ample time to indulge in my favourite recreation. I can say with Carlyle that books are my chief recreation and I sympathise with the great philosopher when he was anxious to get rooms in London away from the crowd, where he could slam the door against vexatious intrusions. Indeed, Carlyle's vast reading and linguistic acquirments were to a large extent due to his burying himself at Mainhill. Thus, before his departure for London, "There was, perhaps, no one of his age in Scotland or England who knew so much and had seen so little. He had read enormously—history, poetry, philosophy ; the whole range of modern literature—French, German and Englishr —was more familiar to him, perhaps, than to any man living of his own age".

I have always regarded my study room as my sanctum but it is often a difficult task to preserve its inviolability. Even our educated men feel no hesitation in intruding, no matter whether one is intent upon a book or deep over a problem. Macaulay's voracious appetite for reading may also be mentioned here, "Literature has saved my life and my reason" he says,

"my mornings from five to nine (at Calcutta) are quite my own. I still give them to ancient literature". But such a feat is of course an impossibility with me. Even if I had the will I have not the strength for it. As I suffer from disturbed sleep I cannot read for more than an hour and a quarter in the morning at a stretch.

Newton was almost in a state of trance on the eve of his propounding the gravitation theory. Imagine what would have happened if he had been constantly disturbed by exacting visitors. Coleridge has left on record his bitter experiences in this respect—how, while he was in a reverie, he had composed two or three hundred lines of *Kubla Khan* ; or, *A Vision in a Dream.* On awaking he was putting them on paper, when he was suddenly called out on business and detained for more than an hour and, on his return to his room, he found to his no small surprise and mortification that he retained only some vague and dim recollections of the general purport of the vision. Emerson also bitterly complains: "At times the whole world seems to be in conspiracy to importune you with emphatic trifles.* * * Live no longer to the expectation of these deceived and deceiving people with whom we converse. Say to them, 'O father, O mother, O wife, O brother, O friend, I have lived with you after appearances hitherto. Henceforward I am the truth's."[2]

One must however make the best of the situation one is in and need not fret over it. Of late years it has been my lot to be literally besieged by people, especially youngmen, seeking information and advice on a variety of subjects, including the means of earning one's livelihood. Over and above this, I am flooded with letters from every part of India and my correspondents are sometimes exacting and inexorable. I am not in

2 "Mussolini never liked to be disturbed when writing. * * * * * * * Rossato tells a story which shows how he resented interruption. On his writing-table there lay a big revolver of twenty rounds and a large hunting-knife, with its sharp, gleaming steel blade exposed, whilst on his inkstand there was a small revolver * * * 'No one must enter here. The first that enters I will shoot'."

a complaining mood—as I know that I have brought much of such distractions on myself by my activities in various directions. I try to put the best possible face on it and emulate my *exemplar*, Marcus Aurelius, whose motto was, "Equanimity" and "whose meditations composed in the tumult of a camp are still extant" (Gibbon).

I advise my young friends to read carefully Benjamin Franklin's *Autobiography*. Born of poor parents, Franklin had to earn his daily bread by dint of hard labour as a printer's apprentice. He had very little schooling, "as at ten years old" to quote his own words "I am taken to help my father in his business, which was that of a tallow-chandler and soap-boiler" but he made up for it by his own efforts. As he could not afford to buy books he made friends with a book-seller. "Often I sat up in my chamber reading the greater part, when the book was borrowed in the evening and to be returned in the morning, lest it should be found missing." "During his spare hours he used to give full scope to his bookish inclination after having worked in composing the types and printing off the sheets". By and by he attained success as a printer "for the industry of that Franklin is superior to anything I ever saw of the kind. I see him still at work when I go home from clubs and he is at work again before his neighbours are out of bed". Franklin afterwards made experiments in electricity on his own initiative and account and is gratefully remembered as the introducer of the lightning conductor and proved, to quote his words, "the sameness of electricity with lightning", acquiring thereby a European reputation in the field of science. It is not necessary to pursue here the career of the great Pennsylvanian who as a diplomatist of unrivalled tactics and pursuasion, had a large share in bringing to a successful termination the American War of Independence.

Franklin has given us a key, as it were, to his happy participation in multifarious activities in the scheme which he drew up for his own guidance, "The precepts of order requiring that every part of my business should have its allotted time".

Scheme.

	Hours.	
Morning.		
The *question*. What good shall I do this day?	5 6 7	Rise, wash and dress, *Powerful goodness!* contrive day's business, and take the resolution of the day; prosecute the present duty and breakfast.
	8	
	9	
	10	Work.
	11	
	12	Read or look over my ac-
Noon.	1	counts, and dinner.
	2	
Afternoon.	3	Work.
	4	
	5	
Evening.	6	Put things in their places.
The *question*. What good have I done to-day?	7 8	Supper. Music or diversion, or conversation.
	9	Examination of the day.
	10	
	11	
	12	
Night.	1	Sleep.
	2	
	3	
	4	

To return to my own case. A few extracts from jottings in my diary of recent years will show how I have managed to go through my activities.

June 15/20.

7—8-30 A.M.: Read from *Jour. Chem. Soc.*, 9-12: at the laboratory, 1-30—2-30 P.M. again at the laboratory,—a run in a motor to the Pottery Works: back again by 4-30 P.M.: look in at the laboratory: 5—6 P.M. Zola's *Money*; 6-15—7-30 City College Council meeting: 8—9-30 at the *maidan* club.

Nov. 12/21.

Morning: read from Taine's *Hist. of Eng. Lit.*, about 9 at the laboratory, (saw agent Steam Nav. Co.); a little after consulted with the Manager, B. C. P. W. about some serious matters, also negotiated a loan—then saw Manager, Pottery Works; in the afternoon at the laboratory; important Directors' meeting of the B. C. P. W.

June 4/22.

My very versatility a source of my weakness. Early in the morning glanced right through *Jour. Chem. Soc.* for April, then took up *Modern Rev.*, read Lahiri's Article on "fiscal policy" and Molière's *Tercentenary* (by Kalidas Nag). At once my attention was captured by the latter.

June 25/22.

Since last year fresh additional labours imposed upon me by the relief operations in connection with the Khulna famine and the Charka apostleship. After all, work, *i.e.* congenial work, is pleasure.

Aug. 31/22.

What a life I have been living! Even my morning hours intruded upon. Streams of visitors and scholars on a thousand and one purpose incessantly pouring in. Of course, I can't complain—the khaddar propaganda again has added fresh burdens. Then the Pottery Works affair, followed by the Banga Lakshmi Mill meeting.

Oct. 6/22.

Once more unhappy Bengal in the grip of a terrible disaster and again I am called upon to organise relief work, however

incapable I might be to cope with the situation. The research work, strange as it may appear, goes on merrily—perhaps more fruitful results it has seldom been my lot to come across.

X'mas day 22.

Received proofs of valency of Platinum ; Laboratory work in full swing. 2 papers almost ready : materials for two more accumulating. The flood-relief pressure somewhat abated : hence toil in the laboratory brisk—enthusiasm unabated and zeal unflagging.

Dec. 27/22.

For the last few days suffering from insomnia : need not complain—but must patiently go through the cycle. Reading Huxley's *Controverted Essays,* a refreshing thing.

March 4/23.

In the turmoil of multifarious work of diverse nature the claims of Chemistry thrust aside. This morning glanced attentively through the contents of the *Jour. Chem. Soc.*—English Chemists evidently coming into their own after the distraction due to war condition—the activity characteristic of the British people in full swing. On the other hand the inertia and torpor of our countrymen affording food for serious and gloomy reflections.

April 4/23.

Read in the *Annual Report* (1922) on the *"Progress of Chemistry"* discussion on Ghosh's *Law* with almost parental interest.

Diary, Aug. 28/31.

From 6-45 to 9 at study.

9 to 9-30 Newspapers.

9-30 to 10 A.M. spinning.

10 to 11-45 in the Laboratory ; side by side attention given to Flood Relief work ; numerous letters, telegrams ; batches of school boys, students as also other donors bringing in their mites.

Meals and rest 12 to 1-30 P.M.

At 1-30 P.M. ran to Bhowanipore, went round the classes in the Padmapukur and South Suburban schools thanking the pupils for their help in connection with flood relief and exhorting them to render further help. Also visited Asutosh College and addressed a meeting in the open compound at 3-15 P.M. Returned at 3-45; signed numerous letters, money order receipts etc.; looked in into the Laboratory.

4 to 5 rest *i.e.* reading *Cromwell.*

At 5-30 sent a wire to Mahatmaji wishing God-speed to his mission and immediately ran to *Sikshamandir* and performed the opening ceremony.

At 7 P.M. in the *maidan* and stayed there up till 8-30 P.M.[3]

Many eminent authors and men of note have been known to work by fits and starts—to labour assiduously for 10 or 15 hours without break for days together and then lapse into inactivity. Spasmodic efforts have never been congenial to my nature. Whatever I have done I have done by slow persistent and systematic methods. The hare in the race with the tortoise was at length overcome by his crawling competitor. My most serious study or writing has often been finished in the morning before young people could make up their mind to shake off their lethargy under the folds of the blanket.[4] I generally get

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[3] During his sojourn in Madras (1848-56) the poet M. S. Dutt gives his routine as follows:—

"My life is more busy than that of a school-boy. Here is my routine: 6—8 Hebrew; 8—12 school; 12—2 Greek; 2—5 Telegu and Sanskrit; 5—7 Latin; 7—10 English. am I not preparing for the great object of embellishing the tongue of my fathers?" *Life* by J. N. Bose, 5th ed., p. 164.

[4] Cf. "In my youth," says Count Buffon, "I was very fond of sleep; it robbed me of a great deal of my time; but my poor Joseph (his servant) was of great service in enabling me to overcome it. I promised to give Joseph a crown every time that he would make me get up at six. Next morning, he did not fail to awake me and to torment me; but he only received abuse. The next day after, he did the same with no better success; and I was obliged to confess at noon that I had lost

up at 5 in the morning and after a brisk walk and light breakfast sit down to my study at 6.

A few words may not be out of place here on the choice of books. Very few people read with a purpose ; they catch hold of a book at random simply because it happens to be ready at hand. "An indiscriminate literary voracity can scarcely contribute towards intellectual nourishment".

Railway travellers often repair to the book-stall and select a trashy novel, a shilling-shocker, and go right through it, the only thing which seems to rivet their attention being its sensational denouement. Novels of acknowledged merit as those of Scott, Dickens, Thackeray, Victor Hugo, Turgenieff, Tolstoi, have no doubt their uses. One should however be on one's guard in reading novels too often as thereby he loses his capacity and inclination for serious study. Light literature should only fill in the hours of relaxation. During the last five years and more my love of history and biography has got the better of my love for standard novels, so much so that I have begun to conceive almost a distaste for the latter. I approach a new book with a serious purpose, with feelings akin to those which agitate my mind when I am going to make the acquaintance of a person for whom I have conceived a high regard from a distance. Desultory reading has had no charm for me ; in fact, my reading has been confined to a

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my time. I told him that he did not know how to manage his business; he ought to think of my promise, and not to mind my threats. The day following, he employed force. I begged for indulgence—I bade him begone—I stormed—but Joseph persisted. I was, therefore, obliged to comply; and he was rewarded every day for the abuse which he suffered at the moment when I awoke, by thanks accompanied with a crown, which he received about an hour after. Yes, I am indebted to poor Joseph for ten or dozen of the volumes of my works."

Again : Doddridge makes the following striking and sensible remarks on the subject. "The difference between rising at five and seven o'clock in the morning for the space of forty years, supposing a man to go to bed at the same hour at night, is nearly equivalent to the addition of ten years to a man's life."

limited range ; but over and over again I go through my favourite authors.

As Haldane puts it: "I had learned that if a book is really worth reading it must be read carefully through, and its standpoint mastered. That cuts indeed both ways, for it tends to reduce the number of books one can read".— *Auto.* p. 19.

Morley also very tersely puts it when speaking of Spencer:

"Among other innocent conventions that he resisted, he read no books. There is something no doubt to be said for this in one aspiring to found a system. There are men who have lost themselves by reading too much. They find that everything has been said. "It is after all the ignorant", observed the best read man of our time, "like Pascal, like Descartes, like Rousseau, who had read little, but who thought and who dared —those are the men who make the world go." *Recollections*: vol. i p. 111.

I have already expressed my fascination for the *Vicar of Wakefield*. The characters in it are so very *human*. Two of the most illustrious writers of the nineteenth century are unstinted in their admiration for it ; says Scott: "We read *The Vicar of Wakefield* in youth and in age—we return to it again and again, and bless the memory of an author who contrives so well to reconcile us to human nature." Goethe records: "It is not to be described the effect which Goldsmith's *Vicar* had upon me just at the critical moment of mental development. That lofty and benevolent irony, that fair and indulgent view of all infirmities and faults, that meekness under all calamities, that equanimity under all changes and chances, and the whole train of kindred virtues, whatever names they bear, proved my best education."[5]

There are gluttons of books or as Macaulay calls them "intellectual voluptuaries." These people go on devouring

[5] J. S. Mill also "thinks Goldsmith unsurpassed" as far as style is concerned. Morley: *Op. Cit.*, p. 66.

one volume after another without ever pausing to think over their contents and these bookworms soon part with their thinking capacity or critical judgment. With them it is only the question of the number of books consumed, nothing else matters.

Let me give here one of my personal experiences. In 1920 while I was in London I read right through J. M. Keynes' *The Economic Consequences of the Peace*, which had just been out. The author saw at a glance with the vision of a prophet the miserable economic plight to which not only middle Europe but along with it England and America as well will be reduced if the terms of reparation so pitilessly exacted from Germany were not moderated.[6] As I am revising this portion for the Press (April, 1932) I find that Keynes' prediction has literally turned out to be true and I have lately been re-reading this book carefully.

"The friends thou hast and their adoption tried
Grapple them to thy soul with hooks of steel."

Literally—"My never-failing friends are they
With whom I converse night and day".

In order not only to while away the idle hours but to add to the enjoyments of life one should cultivate some hobby suited to one's tastes. Among those who have enriched science or extended the bounds of knowledge by pursuing it as a recreation may be mentioned the names of Lavoisier, Priestley, Schèele and Cavendish. Diocletian and Washington in their old age after retirement from their arduous labours found solace and contentment in the seclusion of rural life and the practice of agriculture.[7] So did Garibaldi. Others have

6 Cf. "If the General Election of December 1918 had been fought on lines of prudent generosity instead of imbecile greed, how much better the financial prospect of Europe might now be." *Op. Cit.* p. 135.

7 Cf. The Emperor Diocletian, after his abdication, retired to his country seat. "It is seldom that minds long exercised in business have formed any habits of conversing with themselves, and in the loss of power they principally regret the want of occupation. The amusements

found supreme delight in doing good to humanity, alleviating the distress of the poor, in comforting the stricken, and in various grades of social service ; in a word, in philanthropic work. Others have taken to the cultivation of fine arts, *e.g.* music, painting, etc. In this matter no hard and fast rule can be laid down as tastes differ as much as do the idiosyncrasies of man. It has been well said that Satan always finds some mischief for idle minds. Such occupations as have been indicated are the best antidote against seeking pleasures in frivolous pursuits or amusements. One should be self-contained and contented.

The more dependent you are upon others the more do you invite miseries ; most people as soon as their day's occupation is finished are hungry for the club or for the company of prattlers and gossip-mongers, and hour after hour is whiled away in their society. They simply kill time. Above all cultivate contentment. In my younger days I read in Addison's Essays:—"I have always preferred cheerfulness to mirth", cheerfulness indeed acts like a lubricant to the wheel of life. There are those who lose their temper over a trifle, who are apt to fret and foam at the slightest provocation. Such people are always miserable. I envy those who can dismiss an

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of letters and of devotion, which afford so many resources in solitude, were incapable of fixing the attention of Diocletian; but he had preserved, or at least he soon recovered, a taste for the most innocent as well as natural pleasures, and his leisure hours were sufficiently employed in building, planting, and gardening. His answer to Maximian is deservedly celebrated. He was solicited by that restless old man to reassume the reins of Government and the Imperial purple. He rejected the temptation with a smile of pity, calmly observing that, if he could show Maximian the cabbages which he had planted with his own hands at Salona, he should no longer be urged to relinquish the enjoyment of happiness for the pursuit of power."—Gibbon : *Decline and Fall of the Roman Empire.*

Cf. also : "There was no height of power, of rank, or of opulence, to which he (Temple) might not have risen, if he would have consented to quit his retreat, * * * . He rejected the most tempting invitations, and continued to amuse himself with his books, his tulips, and his pineapples, in rural seclusion."—Macaulay : *History of England.*

unpleasant thing with a hearty laugh.[8] Always try to put the most charitable interpretation on other's motives. Jealousy is also to be avoided; it gnaws into one's vitals. It does no harm to one against whom you nurse it, but it corrodes your own heart. Envy and malice rob one of contentment. There is again an intimate connection between the mind and the body. He who harbours ill-feeling forgets that his peace of mind is at an end.[9]

"In discussing the influence of habits of business upon literary pursuits, Mill considered that nothing promoted activity of mind more. He found, in his earlier days at least, that he could do much more in two hours after a busy day, than when he sat down to write with time at his own command. Bagehot is a conspicious example of the union of admirable composition with close attention to practical affairs. Gibbon, as we all know, says he never found his mind more vigorous nor his composition happier than in the winter hurry of London society and parliament. Grote, on the other hand, who worked eight hours a day at his *History of Greece,* found the demands of his bank too severe before he got two of his eight volumes out. One of the most agreeable novelists of our day was a hard-worked servant of the Post Office, and sat down as punctually to tell the stories of Barchester at five or six o'clock every morning, as if the whole of his masters at the Treasury had been on the watch." Morley's *Recollections*: vol. i p. 125.

As a specific instance of how much literary and even scholarly work can be done in the midst of pressing and exactings business call, the life of George Grote, the historian of

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[8] Cf. "He (J. S. Mill) laid it down somewhere that though seriousness must be the *fond* of all characters worth thinking about, yet a certain infusion of the laughing philosopher is a prodigious help towards bearing the evils of life, and must have saved many a one from going mad." Morley's *Recollections*: Vol. i p. 54.

[9] Cf. When thou wishest to delight thyself, think of the virtues of those who live with thee; for instance the activity of one, and the industry of another, and the liberality of a third, and some other good quality of a fourth.—Marcus Aurelius.

Greece, may be cited. About the age of ten he passed to the Charterhouse and when sixteen he was snatched away by his father, "who had only contemptuous discouragement for his intellectual pursuits," and apprenticed to his bank. He remained there 32 years and became head of the firm in 1830; but he devoted, however, all his leisure to literature and political studies. He completed, it is true, his *History* (12 Vols.) on his retirement from the banking house in 1843; but he conceived the idea of writing it as early as 1822 and all along had to read extensively for collecting his materials. Grote was withal one of the most untiring promoters of the *new* London University, and was a member of Parliament for several years.

The saying that the busy man has always ample time at his disposal is well borne out by my own experiences. It is the lazy and indolent and unmethodical who complain of lack of time to attend to every day routine work not to speak of urgent matters.

Cromwell fights the battle of Dunbar, one of the bloodiest in the campaign, on September 3, 1650; the whole day is almost taken up in the fight as also in the pursuit of the fugitive enemy. "On the morrow (*i.e.* 4th September) the Lord General sits down to write seven letters in succession; one as a despatch of some eight pages addressed to Speaker Lenthall. Amongst these one is also 'for my beloved wife Elizabeth Cromwell' and still another for his 'loving brother Richard Mayor' " ; father-in-law of his son Richard.—*Cromwell*: vol. ii pp. 209-25.

The battle of Worcester was fought on the evening of Wednesday 3rd September, 1651; "anniversary of that at Dunbar last year"; Cromwell "did lead the van in person, * * * and the deadliest tug of war begins. * * * The fighting of the Scots was fierce and desperate. My Lord General did exceedingly hazard himself, riding up and down in the midst of the fire". It was "as stiff a contest for four or five hours, as ever I have seen".

On the same day at ten o'clock at night *i.e.* almost immediately the battle was over, Cromwell writes an account of it to Speaker Lenthall "being so weary, and scarce able to write, yet I thought it my duty to let you know this much". *Ibid.* pp. 325-329.

I cite these particular instances only to show that great men have at their command serene composure and imperturbable mood and being methodical are accustomed to look to many things side by side and do justice to each. Carlyle always given to hero-worship calls Cromwell the *largest soul in England.* There may be differences of opinion on this point. The poet in fact regrets that Cromwell was not "guiltless of his country's blood".

Still another example: Mustapha Kemal Pasha, who is almost adored by his countrymen as the saviour of modern Turkey, is a warrior, statesman, reformer all rolled into one; he finds time to work out everything in connection with the affairs of Angora and discuss important measures with his ministers and inspires them. And what is the secret of his manysided activities? Miss Grace Ellison has summed it up in a few lines:

"He [Mustapha Kemal Pasha] has a power of concentration which is remarkable, and can apply it immediately to any subject, emptying his mind of whatever may have occupied it the moments before".—*Turkey To-day,* p. 18.

Let me again bring forward another example—and a living one—and an embodiment of non-violence and bloodless warfare. Mahatma Gandhi because of his method and punctuality, in the midst of his preoccupations, carrying on momentous correspondence and interviews with the Viceroy and the Home Secretary, flooded every day with hundreds of telegrams and letters—receiving callers of diverse descriptions and giving them audience—writing articles for *Young India* and so on—yet finds time to write letters on his own initiative to

his numerous friends and fellow-workers in the cause to which he has dedicated himself. I have always been shy of intruding myself upon his precious time and do not remember to have ever written to him during the last couple of years and more ; yet on reading my appeal in the papers to the philanthropic citizens of Bombay he finds time to write two lengthy letters to me and my righthand man in the Flood Relief operations, and this morning August 30, 1931, while I am penning these lines my attention has been drawn to his parting message to Bombay.[10]

Nature has, though to a limited extent, endowed me with the gift of "emptying my mind of whatever may have occupied it the moments before" ; and this has enabled me sometimes to attend to half-a-dozen things in the course of the day.

If any one were to ask me what period of my life has been most active? I would unhesitatingly answer: From sixty onwards. During this space of time I have toured throughout the length and breadth of this vast peninsula at least 200,000 miles in opening Exhibitions, National Institutions and preaching the gospel of Swadeshi ; over and above that I have been to Europe twice. But a glance at my daily routine of work will convince any one that in spite of my numerous preoccupations I have never allowed my research at the laboratory to suffer though the universal opinion in India is that I must have bade farewell to it long ago. It is true that when one's activities are spread over a broad area, scientific work cannot possibly receive that degree of attention, which a secluded recluse can afford to bring to bear upon it. In order, however, to make up for this sort of diversion of my energies, I have

10 ON THE EVE OF DEPARTURE.

GANDHIJI'S MESSAGE FOR THE FLOOD-STRICKEN.

"I hope people of the Bombay Presidency will go to the rescue of flood-stricken Bengal and send their contributions to Dr. P. C. Ray." Associated Press of India, Bombay Aug. 29, 1931.

been under the necessity of curtailing my holidays and vacations. Formerly it was my custom to spend fully a month of the summer vacation in my native village ; of late I have to be contented with only flying visits to several places at Khulna or elsewhere. The whole of the Long (summer) Vacation *minus* 12 to 15 days as also the Puja, Christmas and Easter holidays have found me glued to my laboratory. In fact, the several trips to and from Bombay, Madras, Bangalore,[11] Lahore, Nagpur &c., are regarded as portions of my holiday recreations. It will thus be seen that I have always taken good care to make up for these diversions or distractions. Throughout the last 21 years it has been my custom to spend on an average a couple of hours in the *maidan* in all seasons of the year, which practically does away with the necessity of recouping my energies by an exodus to the hill stations. Moreover, I have always avoided work requiring continuous strain, which may tell upon health and which certainly calls for prolonged rest or absolute abstention from arduous labours.

During the last half a century in consideration of my health I have had to abstain from any and every kind of mental labour after 5 or 5-30 in the afternoon except when I have sojourned in the cold climes and even then I have only indulged in reading light literature for an hour or so before going to bed. My intimate connection with so many industrial concerns has no doubt taxed a good deal of my time and attention, but by contrivance I have always found it possible to dovetail all such activities in with the special call on my time—I mean research. In fact, the rigid adherence to the daily routine has left me ample time for the pursuit of my favourite occupation. I can well realise the truth of Goethe's saying that "Time is infinitely long, if we use it fully most things can be got within its compass."

[11] During the past four years I have been regularly attending the Council meetings of the Institute of Science three to four times every year.

Indeed, I can fully enter into the spirit of what the great Zoologist Louis Agassiz says about the use of the most precious gift of God to man.

"Not until he was ten years old did Agassiz attend a public school. His early education was obtained at home. Then with his brother Auguste he spent four years at a boys' school in the nearby town of Bienne. But Louis was a genuine boy, and the long vacations brought him his happiest days. In them he could indulge his love for all outdoors." The Bengali lad has yet to be awakened to such love of Nature.

"I cannot understand why anybody should be idle; much less can I understand why anybody should be oppressed by having time hang on his hands. There is never a moment, except when I am asleep, that I am not joyfully occupied. Please give to me the hours which you say are a bore to you, and I will receive them as the most precious of presents. For my part, I wish the day would never come to an end."—Agassiz.

The veteran chemist, the late Sir Edward Thorpe, in reviewing my *Essays and Discourses* under the caption: "The Life-work of a Hindu Chemist" took occasion to observe:

* * * "It was to be expected, therefore, that Sir P. Chandra Rây should, as he expressed it, sooner or later find himself 'the property of anybody and everybody,' and be called upon by various educational institutions, by conferences, and by the periodical Press and leading newspapers interested in the social reform and development of industrial and political life of India to address his countrymen on subjects which so closely affect their national welfare and prosperity.'

* * "A small, spare man, in feeble health, and a confirmed dyspeptic, he will be spent in her service."—*Nature*, March 6, 1919.

Had he been alive to-day in view of what I have written above he would have been probably the first to realise that under the guidance of a all-wise Providence my life-work was not yet finished. During the last thirteen years it has been my lot to work harder than in any other period of my career.

Anyone, who takes the trouble to glance through the diary of my work, will not fail to find that there is no time

left for social intercourse with my many intimate friends. A quarter of a century or more ago I could afford to spend hours under the hospitable roofs of Jagadis Chandra Bose, Nil Ratan Sarkar, Pares Nath Sen, late Professor, Bethune College, Heramba Chandra Maitra, Pran Krishna Acharjyya and others ; in fact, the house of each of them was my home. But my throwing myself into the whirl of so many activities has robbed me of social amenities. The evenings, which are usually detailed off for such purposes, have been set apart for the *maidan* club. Circumstances have, however, even forced me to be a stranger, as it were, to my nearest blood relations. In fact, the companionship of my beloved pupils in the laboratory and elsewhere has made me forget everything else including the infirmities of age creeping upon me.

Reference has already been made to my avoidance of executive work involving heavy taxation upon time. During the last quarter of a century I have also scrupulously declined acceptance of examinerships ; confining myself only to looking over one or two theses or setting a paper. An examinership as an English colleague of mine used to say, no doubt, brings some grist to the mill ; but it entails dreary, monotonous drudgery as also loss of time and strain on nerves.

CHAPTER XVII.

LIFE OUTSIDE THE TEST TUBE.

I. QUASI-POLITICAL ACTIVITY.

Constructive work either in connection with my own science and its application to industry or in relation to the removal of economic distress has always engrossed my chief attention. In the midst of my activities in various directions my passionate absorption in Chemistry has been the redeeming feature in my career. It can never be said that I have deserted my first love to whom I have sworn life-long fealty and devotion.

I never considered that I was equipped by temperament and nature for playing the rôle of a politician. One whose best period in life has been mainly divided between the laboratory and the study finds it too great a taxation upon his time and energy to go about this vast country or rather continent and address meetings. The very physical strain it entails would render me *hors de combat* in no time. In fact, my fragile constitution and physique as also advancing age forbid my entering the political arena.

I have explained all along that I have been during the last half-a-century under a serious handicap in performing my tasks—I mean insomnia. Sustained work involving long continuous hours of strain and stress would at once upset me. Lord Rosebery who was Premier for a short time as successor of Gladstone had to retire into private life though "his countrymen again and again awaited a lead from one who was known to be a patriot." From his *Biography* by Lord Crew we learn that "Lord Rosebery had brilliant gifts in abundance but he also had sleeplessness. In 1892 he told the Prince of Wales he felt he was disqualified from public life by 'long loneliness and sleeplessness.' In 1903 he wrote: 'I have an absolute conviction that were I return to office, I should once more be sleepless'."

All the same I made frequent tours (1921-26) throughout the length and breadth of our land preaching the need of supporting the National Schools which had sprung up and also the *khaddar* and of removing that great curse of Hinduism —untouchability. I had also to respond to several invitations to preside over the district conferences at Khulna, Dinajpur, Cuttack &c., as almost all the prominent political leaders were then lodged in jail. During the height of the non-co-operation movement I declared—*Science can afford to wait but Swaraj cannot.* This assertion scarcely needs elaboration. When the great Stanislao Cannizzaro was about to commence his career as a chemist being fully equipped for the task the events of 1848 at once determined his choice. He shut up his laboratory and shouldered his musket as a volunteer. A stray bullet might have at once killed him in the course of the first skirmishes as in the case of John Hampden. During the late Great World War many eminent scientists obeyed the call of the hour and cheerfully sacrificed their lives and limbs, including Mosley, an eminent English physicist. Of him Prof. Millikan, the great physicist of the University of Chicago writes:

"In a research which is destined to rank as one of the dozen most brilliant in conception, skilful in execution, and illuminating in results in the history of science, a youngman but twenty-six years old threw open the windows through which we can now glimpse the subatomic world with a definiteness and certainty never even dreamt of before. Had the European war had no other result than the snuffing out of this young life, that alone would make it one of the most hideous and most irreparable crimes in history."

On August 10, 1915, Louis, the only son of Henri Moissan, the great French chemist, who prior to the outbreak of the War was an assistant at the college made famous by his father, died on the field of battle.

As we in India are living in a critical time, the following sound observations have an especial significance.

"Yet it can be said with certainty that the price of inertia is always, in the long run, the loss of a civic sense in the multitude. Men who insist that some particular injustice is not their responsibility sooner

or later become unable to resent any injustice. Tyranny depends upon nothing so much as the lethargy of a people. Autocracy is born above all of the experience that it need not expect active resentment against injustice. This is the inner truth of Thoreau's famous sentence that 'under a government which imprisons any unjustly, the true place for a just man is also a prison.' For unless he is insistently protestant, his acquiescence in the injustice is assumed. His silence makes him in fact the jailer; and the powers that be rely on him because they know that the inert acceptance he has displayed in the past is a proof that his conscience is dead. The bad employer, the savage justice, the corrupt statesman, these exercise their authority only because they have not been challenged in the past. Let that challenge once be made forthrightly and, where one man has been bold, a thousand are prepared to follow him. And where a thousand are prepared to follow, those whose profession is the doing of wrong think twice before the act."—Laski : *The Dangers of Obedience*, pp. 19-20.

In politically advanced countries like England and America, where democratic principles have slowly gained ground, whole-time workers have devoted themselves to public life ; even there the complaint has been raised that men of science and literature by keeping aloof from politics are retarding the progress of the community. A thoughtful writer complains :—

"It has long been proclaimed that the scientist or philosopher should live apart from the herd, like a hermit or a moral refugee. But this was only a confusing of loneliness with objectivity. For speculation in the realm of thought it is enough that one be simply disinterested or objective. The modern masses are not closed to ideas, but they want them and understand them only within the limits of their own experience or of their most constant and vital preoccupations. The problem is not to level all thought down to mass tendencies; but to answer the questions posed by the masses. If the pure scientist or philosopher who is capable of originality and leadership refuse to answer, then some slave to the crowd, some low journalist or venal politician, avid of popularity and profit, will answer instead."—Lucien Romier : *Who Will be Master—Europe or America?* pp. 172-73.

Plato puts the case in a nutshell when he says that the penalty which good citizens have to pay by not taking part in civics and politics is to be ruled by bad men.

Although as I have said I did not openly join the political movement yet I could not live quite apart from it. I was thus

often dragged on to political platforms. At the session of the National Congress held at Coconada (1925), I was present both as a delegate and a visitor. Being presented with a complimentary ticket (distinguished visitor's card), I was assigned my seat on the dais next to the President, Mohammed Ali. On the second day's sitting, at the time of the afternoon prayer (namaz) it was necessary that some one should act for him during the interval ; ordinarily the Chairman of the Reception Committee would have been asked to do so. Mohammed Ali, however, without consulting any body invited the opinions of the delegates and suggested that I should fill in the gap. The proposal was received with acclamation and thus for ten minutes or so I was the occupant of the Chair. This humorous incident has its counterpart. When Lord Haldane had returned from his deputation at Berlin, King Edward invited the German Emperor to pay him a State visit at Windsor in 1907. He was of course accompanied by some members of his Cabinet as matters of High Policy had to be discussed. On one occasion "The Ministers were divided, and the argument grew so hot that I interrupted it and said to the Emperor that it was not right that a foreigner, who was outside his Cabinet, should remain present. But the Emperor had a keen sense of humour, and besides he wanted to have my support. 'Be a member of my Cabinet for to-night and I will appoint you.' 'With all my heart, sir.'

I suppose that I am the only Englishman who has ever been a member of the German Cabinet, though it was only for a few hours."[1]

Immediately after the termination of the Great War, India was on the tiptoe of expectation that some great boon would be conferred on her for her signal services and contributions during the supreme crisis, which England had gone through. To their utter dismay and consternation the people of India got as the first tangible reward for their loyalty the

[1] *Autobiography*, ed. 1831, p. 221.

Rowlatt Act under which any citizen could be spirited away by the police and kept in detention for an indefinite period without trial. Naturally there was a widespread agitation. A mass meeting was held at the Town Hall—the principal speaker being C. R. Das, who was just then coming to the fore. My friend Satyananda Bose called on me one afternoon and suggested to me that I might go a little earlier to my usual *maidan* constitutional walk so as to be present at the meeting. It was thus only by an accident that I happened to be one of the audience. The ground floor of the Town Hall where the meeting was held was packed to suffocation and a large crowd had also gathered on the southern flight of steps as also on the broad street. C. R. Das in order to be audible to the vast seething mass of humanity took his stand on the front of the steps. Naturally I was at the back of the audience and occupied a very inconspicuous place. Somehow or other I was recognised and pushed forward by those about me and placed alongside of Das. Every one was anxious that I should have my say ; what then happened is thus described by a local daily :

"Mr. C. R. Das then asked Dr. Sir P. C. Rây to speak on the resolution. Dr. Rây rose to speak and then was witnessed a scene which I shall never forget. For a few minutes Dr. Rây could not utter a single syllable as ovation after ovation,—cheers after cheers, shouts of "Bande Mataram" greeted the venerable Doctor. Dr. Rây began by saying that he had not the remotest idea that he would have to address the meeting even for a single moment. He came as a mere spectator. He was a man of the laboratory but he felt that there are occasions—the rest of the sentence was drowned in deafening cheers—.[2] Dr. Rây repeated that he felt that there are occasions which demanded that he should leave his test-tube to attend to the call of the country.

[2] I reproduced from memory the following lines as a prelude to what I was going to say "One thing I do beseech you to avoid—a single case of investigation in the absence of the accused."—Lord Morley to Lord Minto : *Recollections, II,* p. 280.

"So grave was the danger to our national life that even Dr. P. C. Rây left his work in the laboratory and joined the meeting to raise his voice of protest against the obnoxious Bill." *The Amrita Bazar Patrika*, Feb., 1919.

Reference has been made about the signal service rendered by India during the War and Rowlatt Act is her reward. Below is given a brief account of what India has done for England in distress:

In a memorandum drawn up by Lord Islington, Under-Secretary of State for India, in connection with "India Day" (Oct. 5, 1918), there is a brief review of the contribution of India to the war under three main heads: (A) Men, (B) Material, (C) Money. I cull the important items:

(A) Men: The total number of men, British and Indian, sent overseas from India between August 4, 1914, and July 31, 1918, is 1,115,189.

(B) Material: It is not too much to say that had the resources of India not been placed at the disposal of the Empire the difficulties of the war would have been enormously increased, if indeed its prosecution on the present scale would have been at all possible. To organise the material resources of India, not only for supplies for Indian troops in Egypt, Mesopotamia, and elsewhere, but also to supply to the United Kingdom many essential requisites for the prosecution of the war, a special Munitions Board has been set up in India.

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(C) Money: In January, 1917, the Government of India, with the assurance of the support of the people, offered to the Imperial Government a contribution of £100,000,000 towards the cost of the war, which was gratefully accepted.

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The heavy military disbursements which the Government of India have undertaken to make by no means exhaust their share of the financial burden which the war imposes. India is the financial pivot of the British Empire in the East.

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Then on the occasion of the incarceration of Mr. C. R. Das who was the spirit and soul of the Non-co-operation movement in Bengal, I felt impelled to write the following letter to Mrs. Das, which was reproduced at that time in the newspapers:

"My Dear Sister,

I am so much choked up with feelings that I can scarcely give vent to them. Ever since his historic defence of Aurobindo

Ghosh, which will always rank as one of the classics in the State trials, your husband has loomed large before the public. His unbounded charity, his lofty patriotism, his high idealism, his heroic and chivalrous defence of the weak have always evoked our admiration. Although I do not see eye to eye with him in some matters, I have always felt attracted to him, and I do not at all wonder that his striking personality should capture the imagination of Bengal, or for the matter of that of Young India. Even those who differ from him in political matters cannot withhold their admiration for the unparalleled self-sacrifice he has made. Our hearts go out to Chittaranjan in the hour of his trial. I know the limitations of the expert, and from my position of isolation and detachment, I am afraid, I fail to realise the full significance of his life's mission. Has not the poet said?

"The man of science is fond of glory and vain
An eye well practised in nature but a spirit bounded
and poor."

Possibly, exclusive, lifelong devotion to my favourite subject has blurred my vision and my *spirit* has become circumscribed. I can assure you, however, dear sister, that in serving my favourite science I have only one idea in my mind, namely, that through her I should serve my country. Our aspirations are the same. God knows, I have no other object in my life.

Cheerfully and heroically you have been bearing your tribulations, and have set an example to modern Bengal and womanhood, which has been rarely met with since the days of Rajput glory.

I sincerely hope that the dark clouds which have overshadowed our dear Motherland will soon be dispelled and your husband restored to us.

Yours sincerely,
P. C. Ray."

14-12-21.

II. Social Service Activity and Relief Work.

Floods in Bengal—The Khulna Famine—The Great North Bengal Flood—The Recent Flood—A Leaf from the Administrative Methods followed in India—The Whiteman's Burden—Lessons of the Voluntary Relief Organizations.

In 1921, shortly after my return from the fourth visit of England, a famine broke out in the southern portion of the district of Khulna adjoining the Sunderbans. As long as I was in Calcutta I did not realise the seriousness of the situation. When I went home during the summer vacation in May I had ample ocular evidence of the acute distress caused by the failure of crops during two successive seasons. The Magistrate-Collector, the *ma bap* (lit. the father and mother) of the people committed to his charge, remained unmoved. There was, however, a newspaper agitation based upon the reports of the correspondents on the spot. The local people moved in the matter and approached the public at large. The Magistrate—the ear and the eye of the government—however made light of it, and from his distant and serene headquarters refused to take notice of the cry of distress, and issued a notification which has earned an unenviable notoriety. A few lines of it may be quoted here: "Almost in every village fruit grows profusely, fish can be caught in the khals by the smaller boys, and milk is to be had almost for the asking." Everyone who has any experience of Indian famines knows full well that the unusual cheapness of the milk is an index of the acuteness of the famine. Parents would even deprive their suckling babes of their meagre allowance of milk, so that by selling it they might have a small quantity of rice; but there are no purchasers of milk, as a famine in India now-a-days means a famine of money. It is also needless to remind the reader that

in the Sunderban regions fruit trees simply won't grow and are conspicuous by their absence. It may be necessary here to premise that in India, whenever a calamity in the shape of a famine or flood breaks out calling for immediate succour, the Government from its sacred isolation and celestial heights at Simla or Darjeeling, or any other hill-stations, at first turns a deaf ear to the piteous appeal of affliction ; when, however, the agitation in the press and on the platform grows in volume and intensity and can no longer be ignored the "tin-gods" begin to grow a bit uneasy. But then they must have the *official* version to act upon. The Secretariat relies upon the divisional Commissioner, who is the conduit pipe for transmission of information. The Commissioner, again, relies upon the Magistrate of the district. The Magistrate in his turn sends for a report from the Sub-Inspector of Police, who derives his information from the Panchayet of the villages. The Panchayat in turn looks upon the village Chowkidar (watchman) as an infallible authority. The shrewd underlings have the knack of finding out what kind of report will be palatable to the superior authorities, and prepare it accordingly. Needless to say the Government communique which is issued in the Gazette is based upon such "first-hand information". Had it been a free country, the Magistrate of Khulna or the railway agent responsible for the flood would not only have been severely dealt with, but the Government (*i.e.* the ministry) would have been turned out. But in India such things are simply a matter of course.

I felt it incumbent upon me at the request of my friends to take part in organising relief work and issuing an appeal for help. The response was most generous, the more so as the Government refused to take official notice of it. Active co-operation was rendered to me by some of the Khulna leaders, notably by Messrs. Nagendranath Sen, Jyotish Chandra Ghosh and Kunja Lal Ghosh, as also by a band of volunteers hailing mainly from the districts of Barisal and Faridpur.

As regards the North Bengal Flood in 1922, it is scarcely necessary to point out that it might have been altogether avoided or at any rate its intensity lessened if the prayers of the villagers had been attended to. But unfortunately in India such prayers or petitions go unheeded or receive but scant attention. It will be evident to any impartial reader that the Government was wilfully and criminally responsible for the great havoc. It is also to be noted here that the petition regarding railway embankment (*vide* correspondence below) from the villagers is dated fully a year before the devastation caused by the flood in the first week of October, 1922. The petitioners were ignorant village folks but they had the intelligence and shrewd commonsense to realise that unless the narrow culverts were replaced by bridges of long span they would always be liable to the calamity of a flood. And this is exactly what happened. The fact is that railway lines are constructed with an eye to the interests of foreign shareholders. The less the cost, the greater the expectation of dividend ; hence many a natural waterway is either filled up with earthwork or shortened so that narrow culverts may serve the purpose.[1] The *Ananda Bazar,* Nov. 21, 1922, in its editorial notes about the Railway embankment as the cause of ruin to the country observes :

We have already written several articles in support of the proof, that the railway line has been the source of untold woes and misery to the people of North Bengal. The inhabitants round about Adamdighi and Nasaratpur (the two railway stations, north of Santahar) had petitioned the Eastern Bengal Railway authorities, through the Magistrate of Bogra, urging that a bridge be constructed between the above-mentioned stations in place of the narrow culvert for the outflow of the immense volume of water from the uplands after the torrential monsoon deluges. Below is appended a copy of the letter from the railway agent to the Magistrate :

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1 I write this from my experience gathered from an inspection of the railway line from Ranipagur to Nasratpur immediately after the flood had subsided.

N. 1356-V.W.

From

E. B. Ry. Agent, Lt.-Col. H. A. Cameron, C.I.E.

To

The Magistrate of Bogra.

Calcutta, Oct. 28, 1921.

Sir,

With reference to your letter dated April 25, 1921, enclosing a petition [2] from Umiruddin Joddar and the inhabitants of Adamdighi and the adjacent villages, praying that a bridge be constructed between the stations Adamdighi and Nasaratpur, I beg to inform you that after due enquiry we are of opinion that there is no need for a bridge in the aforesaid place.

(Sd.) Illegible,
on behalf of the Agent.

Memo. No. 1773-J.

Office of the Magistrate, Bogra.
The 3rd Nov., 1921.

Copy forwarded to Umiruddin Joddar and others for information.

(Sd.) Illegible.
On behalf of the Magistrate.

Writing about the obstruction of the natural drainage Dr. Bentley said :—

"All drains converge into rivers. The rivers ultimately discharge themselves into the Padma and the Jumna. The slope of the country is from six to nine inches. Unfortunately, the engineers who are responsible for the construction of the District Board roads and Railway lines in this region did not trouble their heads about the natural drainage of the country. The roads and railway lines are insufficiently provided with culverts and waterways. *The water itself is not an evil, but it must be quickly drained off.* The fact that floods have become almost annual visitants clearly show a disorganisation of the catchment areas of the river system of Bengal, due to the faulty construction of railways.

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2 Subhas Chandra Bose sent the above petition to the writer from Santahar. A copy of it was sent to the press. The *Ananda Bazar Patrika* published a translation of it in Bengali and commented on it. The original letter could not be traced.

The problem before us is to see that the natural system of drainage is restored, and after every rainfall, water drains off as quickly as possible. The river system ought to be surveyed with a view to discovering how the basin of each river has been obstructed by railway embankments. Wherever necessary, a sufficient number of culverts of a new type must be inserted. . . With such a system, as I suggest, Bengal can keep her roads and railways, and largely eliminate malaria, improve her water supply, and, at the same time, prevent risks of dangerous floods. This disorganisation of the country by the roads and railway embankments is the cause of the trouble. . . . The railway embankments and the District Board roads, to a certain extent, are responsible for the flood."

Surely, there never was, nor ever will be, a more direct contradiction of the statements of the Government by one of its own functionaries.

The great flood of 1922 owed its origin to the heavy rain that fell during the week beginning 22nd September, all over the basin of the river Atrai, which is a tributary of the river Brahmaputra (or Jumna as it is locally called), and into which most of the other small streams of the region discharge their waters. The news of this great calamity reached Calcutta in a rather strange manner. The Mail train starting from Darjeeling on the 25th instant reached Parbatipur the next morning and could not proceed further, because the lines some miles south of Parbatipur were reported to be under water, and the news of the breach at Akkelpore became known to Railway officials. The passengers thus stranded had to stay at Parbatipur for four days and were then sent to Calcutta by another long and circuitous route. Among the luckless passengers travelling by this train was one of the editors of the *Statesman*, and he was the first journalist in Calcutta to publish this appalling news in an eloquent article illustrated with photographic representation of the breach and the temporary sea into which the vast area had been converted in no time. In the meantime, on receipt of some private communications, Mr. Subhas Chandra Bose had proceeded to the affected area to make a personal survey of the situation. From

there he wired simultaneously to me, the Congress, and Bengal Young Men's Association, of which Mr. Bose was a Vice-President. An appeal was issued through the Press to the Calcutta public to hold a meeting at the Indian Association Hall where a committee was to be formed and necessary steps to be considered. The meeting was largely attended by representatives of various communities, both European and Indian. It was marked by unusual enthusiasm. I was elected President of the Bengal Relief Committee which had just then been formed. At first I was unwilling to shoulder such a heavy responsibility, as I had only recently laid down the begging bowl with which I had been out in connection with the Khulna Famine. But people would not listen to me and so at last I had to agree to the proposal most reluctantly.

To give an idea of the damage done by the flood it may be useful to quote the evidence of the *Statesman,* which can by no means be charged with particularly pro-Indian bias.

"The Government estimate as to loss of and damage to property is held to be in almost every respect, a considerable underestimate. In the Bogra district the loss has been estimated by the Assistant Director of Public Health at over one crore of rupees. In the village of Talora alone, seven small huts out of full 200 dwellings have been left standing.

"After a visit to the Naogaon Sub-division, I am on good authority to say that the damage to property and destruction of cattle is much more serious than is indicated by official estimates. The Naogaon sub-division has a population of something over five lacs and fully sixty thousand dwellings have been destroyed within its boundaries by the flood.

"Practically all the *Ganja* crop is helplessly damaged, while only an infinitely small part of the growing rice crop will be available this season."—(*The Statesman,* 15th Oct.).

The Government *communique* itself admits that the area affected in Rajshahi is three times the area in Bogra, and the loss of houses and property is more severe. Taking the estimate of the Assistant Director of Public Health as the basis, the loss in Rajshahi and Pabna combined, can be safely put

at 5 crores of rupees, the total loss in the flooded area thus amounting to about 6 crores.

The spacious buildings of the University Science College were used as the office of the Committee, and the usual stillness of the College was broken this year by a wave of unusual activity. Crowds of men and women were seen constantly coming in and going out. Not less than seventy volunteers, including some eminent professors of Calcutta Colleges and the University, had to work regularly from morn till midnight. Separate rooms and halls were used for locating the various departments,—the General office, the Treasurer's office, the Stores, the Despatch department, and Stations for receiving donations, in cash and in kind. A novel feature of the Calcutta office was the formation of a Publicity Bureau whose duty was to supply the public with authentic and up-to-date information. Appeals were sent to all parts of India, and even to England, France and America. This vast organisation worked on with clock-like regularity and precision. It was because every worker—in Calcutta as well as in the flooded area—could find ready sympathy in his rich and generous heart that this organisation could work like one man, composed though it was of men of various types and different temperaments.

The success of the Bengal Relief Committee is mainly due to the fact that with a far-sighted policy it worked, from the very beginning, upon the principle of co-operation and co-ordination. As soon as the staggering news of the terrible catastrophe spread over the country, innumerable relief-societies cropped up eager to help the distressed. But for the unifying influence of the Bengal Relief Committee, there would have been constant overlapping in certain areas, and consequently unavoidable neglect in others ; and thus a vast amount of energy would have been frittered away. With an intelligent perception of the situation, the Bengal Relief Committee invited the Congress Committee, Bengal Chemical & Pharmaceutical Works, Bengal Social Service League, Bengal Youngmen's Association and others to send representatives to

its working committee, so that by constant consultation and mutual understanding, overlapping and duplication of work might be prevented. The invitation was readily accepted, and different areas were entrusted to different organisations. Thus was evolved a system, efficient but elastic, in which units could work under a central authority without any detriment to their individual initiative and energy, a system, in which there was real unity but no mechanical rigidity.

Subhas Chandra Bose, whose heart always melts at the sight of suffering humanity, hied there as stated before on his own initiative to learn at firsthand the nature of the havoc. So likewise did Dr. J. M. Das Gupta, who at a heavy sacrifice of his professional income stayed at Santahar for sometime to organise medical aid. Jatin Ray of Bogra, a selfless worker, hastened there in a boat improvised from sides of rusty kerosine oil tins, with a few maunds of parched rice to render first aid. Satis Chandra Das Gupta, Superintendent, Bengal Chemical and Pharmaceutical Works, Ltd., with a force of volunteers from his factory, also hurried to the scene of devastation.

After a couple of months or so Subhas Chandra was called away by his Chief, C. R. Das, to help in his political mission. His place was taken by Dr. Indra Narayan Sen, than whom a more selfless and devoted worker it has seldom been my lot to come across. But the brunt of the relief-work devolved upon the shoulders of Satis Chandra Das Gupta whose prodigious capacity for work and organising power won the admiration of all. Mr. Das Gupta worked on the Bengal Relief Committee from its very inception and was in charge of its general management. At last, the whole burden of the Bengal Relief Committee practically devolved on him. Inspite of his heavy responsibility, he found time to visit the Atrai Centre, at least, once or twice a month. With unflinching devotion he rendered splendid services, and did not leave his post till the activities of the Bengal Relief Committee were finally over.

I feel uncomfortable, nay embarrassed, at the prominence

given to my name. It is, however, fair to add that I acted more or less as an ornamental figure-head. The success of the relief-operation was mainly due to the loyal and never-failing help rendered not only by my colleagues of the College of Science notably by Professors P. C. Mitter, Megh Nad Saha and others but also by active helpers like Prof. Niren Chowdhury and his friends who ungrudgingly placed their services at my disposal.

The Special Correspondent of the *Manchester Guardian* writes from the flooded area of Northern Bengal, Nov. 11[3]:—

"GOVERNMENT'S PRESTIGE LOWERED."

"I have been spending a few days in the flood devastated region of Northern Bengal, and have heard and seen a good deal that is instructive.

"Northern Bengal is in the Ganges delta, low-lying rice land intersected by river channels and traversed by railway embankments which run athwart the natural lines of drainage. There was a very heavy rainfall from the 25th to the 27th of September and the water rose to an unprecedented height, submerging the cultivated lands and topping and finally reaching the railway embankments. The area affected was about 2,000 square miles of country, with a population of over a million. Mercifully the loss of human life was comparatively small. Not more than sixty people were drowned, but throughout 700 square miles of a thickly populated countryside more than half the houses collapsed, all the fodder was ruined, and at least 12,000 heads of cattle perished. Further, the main crop was utterly, or all but utterly, destroyed over an extent of 500 square miles. The losses in the rest of the affected tract were less serious, but by no means negligible.

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3 I may be permitted to add here that the *Manchester Guardian* has always been singularly lucky in choosing its correspondents. When in 1897 "the greatest famine of the century", to quote Sir Anthony (now Lord) Mac Donell, overtook Northern, Central and a considerable portion of Western India, it was the graphic letters of Mr. Vaughan Nash, which awakened the British and even Indian public to the magnitude of the calamity. The *Manchester Guardian* correspondent on the present occasion, I learned afterwards, was Mr. J. T. Gwynn, who had served in South India in the Civil Service for several years. He was thus thoroughly conversant with the ways of the bureaucracy. The graphic account reproduced here was widely published at the time in the Indian newspapers. It was afterwards in a slightly curtailed form incorporated in his book, *Indian Politics*.

WHY GOVERNMENT IS BLAMED?

"When this calamity occurred the Government were well above flood level in the hills above Darjeeling. (They are still there by the way). The early reports seem to have given them no conception of the gravity of the situation. They were slow to move, and when at last they began to take action, the action taken was inadequate, and what they gave was given ungraciously, reluctantly, and under pressure of public opinion. That at least was the impression left on the minds of the general public of Bengal.

SIR P. C. RÂY.

"In these circumstances a professor of chemistry, Sir P. C. Rây, stepped forward and called upon his countrymen to make good the Government's omissions. His call was answered with enthusiasm. The public of Bengal in one month contributed three lakhs of rupees; rich women giving their silks and ornaments, and the poor giving their spare garments. Hundreds of youngmen volunteered to go down and carry out the distribution of relief to the villagers, a task which involved a considerable amount of hard work and bodily discomfort in a malarious country.

"What greatly aggravated the public's dissatisfaction with Government's attitude was the fact that the disaster is generally attributed to the faulty design of the railways which is believed to make very inadequate provision for the passage of flood water. There is much evidence to support this view, but it was only after a lapse of a month and a half that Government promised an inquiry into the question.

A POWERFUL PERSONALITY.

"The enthusiasm of the response to Sir P. C. Rây's appeal was due partly to the Bengali's natural desire to score off the foreign Government, partly to genuine public sympathy with the sufferers, and very largely to Sir P. C. Rây's remarkable personality and position. Sir P. C. Rây is a scientist of world-wide repute. I do not think he can be said to be an orthodox Non-Co-operator, but he is a very strong Nationalist, and a very strong critic of Government. He is also a real organiser and a real teacher. I heard a European saying, 'If Mr. Gandhi had only been able to create two more Sir P. C. Râys he would have succeeded in getting Swaraj within this year.' A Bengali student told me, 'If any Government officer or any of the Non-Co-operating politicians had called for subscriptions the public would not have given even three farthings. But when Sir P. C. Rây calls everyone knows that the money will be spent and well spent, and not wasted.' I had the good fortune to see

Sir P. C. Rây in Calcutta at his College of Science and I think I can understand why his fellow-countrymen feel so much confidence in him. One day he was gloating over vast and disorderly-looking stores of clothes, old and new, brought by Bengali sympathisers to his laboratories. The volunteers were busy under his eye, bringing order out of disorder, and arranging for the despatch of the clothes to the scene of the relief operations. The next day I caught a glimpse of him assisting two young students to carry out some experiment in chemistry, and it seemed to me there was affection between the teacher and the taught. When I heard him talking about the Government I felt that I would sooner serve under him than be criticised by him. He is too warm-blooded and energetic a man to make a perfectly fair critic. But any man who feels aggrieved by his criticism has at least the satisfaction of knowing that unlike so many critics, Sir P. C. Rây would never shirk taking on the job himself if the chances were offered him, and that if he did take on the job he would be likely to put it through about as well and perhaps a little better than anybody else.

"When I reached the affected villages, a month and a half had elapsed since the flood. The waters had subsided, but the extent of the damage done was still very obvious, and the various relief agencies were hard at work. For the largest and most business-like looking agency was Sir P. C. Rây's Bengal Relief Committee. This is not a political organisation but I did not find any one among its up-country workers who was not a Non-Co-operator.

The Relief Workers.

"In charge of its relief operations was a young Bengali who passed into the Indian Civil Service a couple of years back, became a convert to Non-Co-operation, threw up his appointment, and has since been in training for politics. Under him were a couple of hundred volunteer workers, mostly between the age of 17 and 25. A few were clerks in merchants' offices whose employers had granted them leave to enable them to take up the work. There were also doctors for the medical work, but the great majority were regular Congress propagandists and organisers, many of them boys who had left Government schools and colleges at Mr. Gandhi's call. Among them I found a young No-Co-operating Indian Christian and a young Hindoo who had been interned on suspicion of complicity with the pre-war terrorist conspiracy. These two were both men of some ability occupying positions of trust.

"Altogether the organisation looked pretty good, and the spirit of the volunteers was excellent. The men really do go into the villages, see things for themselves, and make detailed inquiries regarding losses.

from the villagers on the spot. Then they bring the villagers what they need or give the villagers written order authorising them to draw what they need from conveniently situated centres. Much food, medicine, and clothing have thus been distributed to the villagers, and a beginning is being made with the distribution of housebuilding material and cattle fodder. Other minor volunteer relief agencies are also at work, and the Government have done and are doing a good deal. But my enquiries on the spot suggested that there was some justification for the popular complaint regarding Government's attitude, and they made it quite clear that Government have lost immensely in prestige over the whole affair, and that Non-Co-operation has won what Government have lost, thanks to the fine work of Sir P. C. Ray's volunteers.

WARNING UNHEEDED.

"I saw and talked with all sorts and conditions of men; minor Indian Government officials, Local Board officials, small lawyers, zamindars, railwaymen, Non-Co-operating volunteers, and villagers. There was a general consensus of opinion to the following effect. Six years ago the metre-gauge railway was converted into broad-gauge. The waterways were then drastically curtailed—the curtailment was nearly 50 per cent. of their capacity in some sections. This was responsible for a serious flood in 1918, a minor flood, in 1920, and finally for the present disaster. Government had been deaf to the warnings of local officers, and now Government's railway experts are reluctant to admit the extent of the damage done and the part which the railway embankments played in holding up the waters. Government have missed and the Non-Co-operators have seized a great opportunity for winning the affections of the villagers. The Bengal Relief Committee has been prompt and generous. Its workers have gone to the villages and put heart into the cultivators. The railway and its officers have been most prompt and generous in rendering help, and the local district officers have on the whole worked hard and well though some (not Europeans, I am glad to say) exhibited an indecorous jealousy of the non-official organisations.

"But Government's organisations compared unfavourably with the organisations of the Bengal Relief Committee. Four different Government districts and four different Government departments were concerned with the relief work, yet no single whole time officer was appointed to co-ordinate the work and to make it easier for Government and volunteer agencies to pull together. Some departments sent men and let them idle away their time, while other officers had neither men nor money for the most necessary work. It is rumoured that it cost

Government Rs. 20,000 in officer's pay and travelling allowance to distribute Rs. 20,000 worth of seed. This last is an estimate, not an audited figure, but with my own eyes I saw an agricultural expert busy checking the work of two agricultural experts who were busy doing nothing, so I should not be surprised if the estimate proves to be under the mark.[4]

A STATIONMASTER'S EXPERIENCE.

"I met a stationmaster who had been living with his wife and newly-born child at a country railway station. With the first rise of the waters his wife was driven out of her quarters and compelled to take refuge in the ticket office. This refuge she shared with four snakes. The stationmaster counted twenty snakes on a little tree that grew on the platform just outside his window. All the snakes in the country had been flooded out of their holes and were seeking refuge, like the men on any dry ground that showed above the flood. A further rise of the waters warned the stationmaster that it was time to go up higher. He crossed the line to the goods shed, piled up sacks of tobacco and rice as high as he could get them to go, and took refuge on top of this platform with his wife and child. That was at 1 p.m. At 8 p.m. the water had reached them and was still rising, and they gave up hope. At 10 p.m. the child died, and thereafter the waters began to fall. If that was the experience of a stationmaster living in a solid masonry building what sort of a night did the villagers pass, with their mud huts crumbling and collapsing as soon as the waters rose above the flood? Many of them took to the trees and spent two or three days without food before they could be taken off in boats. I heard of a small local landholder who had been doing rescue work on his own in a boat. The second day after the flood had reached its height, he found one house still standing and in it two hens, a jackal, a hare, and two men, not to mention the usual snakes.

"One member of Government took occasion the other day to enunciate the proposition that Government is not a charitable institution. If he had been round seeing the effect of the flood for himself and hearing the experiences of the sufferers, he would have waited for a more suitable moment at which to give expression to this thought.

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4 The correspondent is by no means out in his guess. High officials have in confidence often assured me that whenever Government undertakes Relief Work on a large scale full 50% of the money finds its way into the wrong pockets. *Cf.* F. H. Skrine : *Cal. Rev.*, Aug. 1928, pp. 141-47.

ANDREWS ON FLOODS

WHERE THE GOVERNMENT FAILED.

"The fact is the Government were over-cautious when it was the moment to be generous, even lavish. The villages had lost most of their annual income and a great proportion of their small stock or capital, and they had been frightened almost out of their wits. They badly needed someone to come round and put heart into them to assure them of sympathy and of the help they needed to set them on their legs again. The local officers did what they could but the Government did not give them the money or the promises they needed to reassure the cultivator. They left it to the Bengal Relief Committee to do this and the Non-Co-operators will reap, and will deserve to reap, the fruits of the good seed sown by Sir P. C. Rây's volunteers. All the local officers tell me that the volunteers have won the gratitude of the villagers, and that the villagers will follow their lead at the next election. I visited one of the minor relief centres with a Government officer. The villagers there told us plainly that "Gandhi Maharaj" (no longer "Mahatma Gandhi", but now "Gandhi Maharaj") and his followers had saved the countryside, that they would vote for Gandhi Maharaj at the next election, that they would like to replace the European officers by Indian officers who would understand them and have sympathy with them like Gandhi's volunteers, and that they prayed that Swaraj would come soon to make them happy. I spent two other mornings in the villages, one day in company with a Non-Co-operating volunteer and the other day with an experienced Indian Government official. Everywhere I got the same impression. If the villagers had doubts before, they have made up their minds now. The Non-Co-operators, they believe, are their real friends, and not the Government officers. The Government officers themselves confessed sadly that this is now the prevalent opinion in the Bengal villages.

"I was the more impressed because the villages I saw were not "politically advanced" villages. This is a backward tract, and the villagers were poor, ill-educated, simple minded, and timid folk, mostly Mohammedans.

"I said that Non-Co-operation had won a first class victory in the Punjab over the Gurukabagh affair. Here in Bengal, through this relief work, it has won another victory which is less striking but far more Mohammedans.

Mr. C. F. Andrews who visited the flood area more than once contributed a series of four articles to the newspapers from which a few short extracts are also appended below:

"We passed many villages on the way during our long walk and I could see at once the admirable work that had been done by the volunteers of the Bengal Relief Committee in rebuilding the houses of

the peasants. By far the greater part of the reconstruction had been carried out through their aid. It has been a perpetual wonder to me during the days that I have been visiting the flooded area to see how far their operations have reached. I have been in very remote villages far distant from the railway line and have seen there the same good work being carried, which I witnessed that early morning near the Atrai railway centre. The workers appear to have been ubiquitous, and their work, as far as I could judge, has been both economical and effective. The more I have seen of it, the more I have been impressed by it. Indeed it would not be too high praise to state, that under the inspiration of Dr. P. C. Ray and his able co-adjutors, Mr. Das Gupta, Dr. Sen Gupta, Professor S. N. Sen Gupta, and others, it has been one of the noblest efforts made in modern India on behalf of distressed humanity.

The experience to the volunteers themselves has been unique. Many of these have already told me, that they have found their whole outlook upon life changed by the knowledge of human suffering and endeurance which they have gained. Every volunteer I have seen in the midst of his work has been unstinted in his admiration of the patience and cheerfulness of the villagers in this hour of calamity.

"At Santahar itself, I went carefully into the methods of the work carried on by the head-quarters staff of the Bengal Relief Committee. The thoroughness and business-like character of the undertaking struck me more than ever. It was like the head office of some big business firms. Files and records were kept and all accounts were registered and audited with admirable regularity. From my own general observation, it is easy to assure the public,—if any assurance is needed,—that there has been no waste at all in the expenditure of the money given for relief purposes. The cost, also, for distribution and inspection has been reduced to a minimum. There is no danger of a single rupee of the money collected being mis-spent.

"* * I have not met a single person yet on the spot, who does not believe that the natural drainage of the country has been very seriously hindered by these new railway embankments. It must be borne in mind, that the water in the Atrai-Patisar area of the Rajshahi District was held up for over a month, and that it was just that length of time which caused the complete failure of the crops.

"I cannot conclude this series of articles without again paying my warmest tribute of admiration, both to the organisers of the Bengal Relief Committee, in Calcutta, and also the workers on the field. Very many of these have been labouring all through, from the very first days of October up till now, and the strain of the work has been continually

increasing. Not a few of the volunteers on the field have fallen sick owing to the severe character of the work and the impossibility of obtaining proper food and rest while carrying out relief from village to village. These devoted workers have been nursed back to health at the camp hospitals, and have then returned bravely to their duty without any further break."

The great North Bengal flood described above was regarded as the most terrific of its kind in the memory of the living generation. The account of it was written six or seven years ago. In September of this year (1931) another flood, unprecedented in its fury, havoc and magnitude and beating all past records, overwhelmed a considerable portion of North and East Bengal. It came down like an avalanche and swept away all before it.

Professor Megh Nad Saha, who himself took an active part in the Flood Relief operations of 1922, in the course of an illuminating article entitled "Catastrophic Floods in Bengal and How They can be Combated", observes in the introductory portion :

"A few years back Bengal was in the grip of a catastrophic flood, and a similar calamity recurred last year.

"From newspaper reports, it appears that the whole of the Brahmaputra basin covering an area of 2,5000 sq. miles was visited last year (1931) by the most terrible flood within living memory. As the population in this part is nearly 800 per square mile, the total number of persons affected is not less than two millions, *i.e.*, about four hundred thousand homesteads. From the writer's experience of such floods (he comes from the flood-stricken districts) and from newspaper reports of the havoc caused by the flood, it is estimated that the total loss in money to Bengal will not be less than eight to ten crores of rupees if we suppose that the average value of a Bengal homestead is from Rs. 200 to Rs. 250. But there is every chance that this might be an underestimate."—*Modern Review*, Feb., 1932.

I was again called upon to organise relief for the sufferers ; and the *Sankat Tran Samity* (lit. aid-to-the-afflicted-committee) undertook to render what little help it could. As on the previous occasion in response to our appeal contributions poured in ; owing, however, to the universal trade depression and the tightness in the money market, although the response was

generous, the amount of money collected was considerably less. It is my pleasant duty to record here that during the Khulna Famine (1921) and the North Bengal Flood (1922) as also on the present occasion I have received material and moral help from the European missionaries; some of them have raised funds and placed them at my disposal; while others have voluntarily gone to the affected areas to see with their own eyes the state of affairs and have not hesitated to publish in the papers their personal experiences.

This time also, the office of the *Sankat Tran Samity* was located in the premises of the Science College. It was again my good fortune to enlist the services of Messrs. Satis Chandra Das Gupta, Panchanan Bose, Kshitis Chandra Das Gupta and others who worked from morning till midnight even at the sacrifice of their health. A noble band of volunteers hailing chiefly from Contai and Tamluk (Midnapur) rendered signal service. Each and one of them like the *unknown warrior* braved malaria and cholera which were raging in the affected areas in earlier stages. School and College students and the general public as well responded to the call of humanity in raising funds. For a few months it was a happy sight to see even little boys and girls steaming to the Science College with their collections.

The Government as is its wont turned a deaf ear to the cry of the distressed. As the columns of the daily papers were full of vivid pictures of dire distress, the Honourable member of the Executive Council who has the portfolio of famine, flood etc., made a tour in his special saloon carriage and steam launch and visited the afflicted region. His eyes and ears were of course his subordinate officials'—including the Commissioner of the division, the Magistrate of the district and his own Civilian Secretary. It is unfortunate that this time there was no correspondent of the type of Mr. Gwynn to present a graphic narrative of the catastrophe. It is only necessary to premise that the flood area was already since last year in the grip of acute distress. It was mainly a jute growing centre; owing to the

ridiculously low price of this agricultural produce, the mainstay of the locality, famine condition already prevailed there.

But the Government as was once described by one of its members, is not a "charitable institution" and there is no room for charity in it. As such it is quite in keeping with its tradition to belittle the extent of havoc created by the recent floods. In the course of the communique the Revenue Member says:—

"There is no famine at present though some gratuitous relief is necessary and is being supplied by Government and non-official organisations." * * * *

Again he sees no starvation—

"It is satisfactory that actual experience of the present conditions in the flooded areas shows that the alarming reports circulated by correspondents in the newspapers are exaggerated. Though some people require relief even now, no one says that the number is large."

An English missionary's testimony:—

"To the Editor of the *Statesman*, (Sep. 29, 1931).

I read with considerable interest the Government communique relating to the flood situation in Bengal published in your issue (Dak Edition) of Wednesday, September 23. It appears from the communique that the Hon. Member in charge of the Revenue Department made a lightning tour of seven days in the districts of Pabna, Bogra and Rangpur and from that amount of "actual experience" had the temerity to publish, as a Government communique, his opinions as to the present conditions and prospective needs of the flooded areas mentioned.

One may admire his courage but certainly not his discretion. The report as far as it affects Pabna District, especially Bera and the area on the Bhil side of Banwarinagar, is very misleading. I have recently returned from a tour of over three weeks in these areas administering flood relief from private sources, and I found that in many places, especially in the Bhils and near the Ichhamati and Chiknai rivers, both the Aus and Aman crops had been submerged by the floods and the poor villagers were desperately trying to salvage what they could of the partially grown crops, which were then only useful as fodder. The Hon. Member says, "In the areas visited there was no sign of starvation." Possibly not where he and his party were on the launch. If he had spent even a day or two and penetrated into the villages as I did, he would have seen enough to satisfy him that there are hundreds of people who are in a state of semi-starvation. In many places I found cases where one meal in three days was considered a happy circumstance. I can give names of villages visited and number of people assisted,

where extreme distress prevailed. * * * I regret that advice has been given to conserve the monies collected for flood relief. Now is the time that food relief should be distributed and all the funds collected and more will be needed for this purpose as well as for clothing and medicines. I would therefore suggest that the Government continue to help with loans for seed, and ploughing animals, many of the latter having perished in the floods; and that publicly subscribed funds be concentrated on the immediate needs of the people.—Yours etc.

(Rev.) ALLAN J. GRACE."

Pabna, Sept. 26.

Mr. H. S. Suhrwardy who also visited the affected area in the course of a lengthy letter to the *Statesman* (Oct. 22, 1931) observes "This is the greatest calamity that has overtaken Bengal within living memory."

"An Indian correspondent" of the *Statesman* (Sep. 30) thus comments on the above letter:

"The letter of the Rev. Allan Grace of Pabna regarding the condition of the people of the flooded area published in the *Statesman* of Tuesday last must have placed the Revenue Member of the Government of Bengal in an embarrassing position. The missionary gentleman has unreservedly challenged the assertion of the Revenue Member and pointed out that the statement in the Government communique that 'there was no sign of starvation' was incorrect. The personal experience of Mr. Grace showed that the people in some places considered themselves fortunate if they could get one meal in three days' time. An assertion like this in face of the Government communique, if it had come from an Indian source, would certainly have been rejected as mischievous propaganda of the political agitator, but it is doubtful if the Government or any one else will have the courage to class Mr. Grace with him. His bold and timely contradiction has shown the hollowness of the statements issued off and on by the Government, and the pity of the whole situation is that this particular communique was based on the investigation conducted by a Bengali member of the Government who has spent the best part of his life on the bench of the highest judicial court in the country * * *."

The writer, I am afraid, misses his point. It was only by an accident that the Revenue Member happened to be a Bengali. It is the *system* or the *method* of administration which is at fault; and this I have already drawn attention to.

Instead of swelling the account by quoting too many instances it suffices to insert here the graphic report of Mr. Satis Chandra Das Gupta, who personally toured round the affected area and walked on foot mile after mile in spite of his poor health to see things with his own eyes:

"I have seen an entire village population except one family living on roots of water lilies. They did not know what rice is for weeks. There have been deaths in the village which is ascribed to starvation. The women were in rags, the men weak and depressed and the children in low state of health. At the time I visited, a number of little children were searching for roots of water lilies and in the huts the women were boiling the same food. This is the state of the village Chakdah in Basail thana of Tangail, and there are hundreds of villages in the affected area where conditions are not better. Where water lilies do not grow or are not abundant they are eating cores of plaintain plants. If living on cores of plantain plants or the like is not starving then there is no starvation."

Mr. Kshitish Chandra Das Gupta, who also visited the affected area, to see the acute distress of the people, went direct inside the kitchen and began exploring what meals they were having.

"On entering a house, Khitish Babu peeped into a room and saw two sugar-canes in a corner. The householder immediately pointed out that those were not sugar-canes but stalks of plantain leaves. They are skinned and are therefore looking like sugar-canes. They are *imitation sugar-canes*. When the little ones cry for food, and we have nothing to give them, we give these cut to small sizes as candy. They chew and suck the water. This keeps them engaged and they get exhausted and stop crying. The father pointed out what the children threw off after sucking. Khitish Babu has brought these. These are being exhibited at the Science College. * * * *

"Next Kshitish Babu entered a house where on getting into the kitchen he found two little children in a corner secretly eating something. He wanted to know what it was and brought out the plate. It was a little sticky lump which the children were eating with great avidity. The father explained that it was wild 'kochu' (*arum Indica*) stems boiled and then mashed. It had no salt even. While the father was talking, a daughter of six came up and quickly began to eat from the plate. She was asked to keep something for the smaller ones, but before the sentence was finished she gulped in one morsel all that remained and

finished it. The two boys began to cry in despair. That was the last morsel. The father brought out the pot from kitchen, there was nothing left."

The above few extracts taken at random from the daily papers throw a side-light on the methods of administration; they tell their own tale and no further comments are needed.

And yet the poet of Imperialism with his wide experience of India does not shrink from writing such nonsencical stuff as reproduced below, evidently for consumption at "home" and abroad.

Take up the White Man's Burden [5]
Fill full the mouth of Famine
And bid the sickness cease;
Take up the White Man's Burden
No tawdry rule of Kings.

In commenting on the North Bengal Flood of 1922 I have said that "it might have been altogether avoided or at any rate its intensity lessened if the prayers of the villagers" to replace "the narrow culverts by bridges of long span" had been attended to. The floods of the present year likewise would not have been so devastating if timely precaution had been taken in allowing passages for the accumulating mass of water. A very opportune brochure on this subjects has recently been placed in my hands. The writer has studied the subject with care and diligence and is thus entitled to speak with authority. I make no apology for making a few extracts from it.

"The great flood of North Bengal in 1922 was an eye-opener to many, and the eminent scientific genius of Dr. C. A. Bentley discovered in the badly constructed E. B. Ry. (especially the new Sara-Serajganj Section), with its narrow culverts and short bridges, the real cause of the ruinous water-logging. Increased incidence of malaria, cholera and other fell diseases is a secondary but sure effect of the stagnating floods.

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5 As I am sending this portion to the printer (June 11, 1932) I am amused to read Sir Samuel Hoare's eulogy of the Indian Civil Service. I feel tempted to make a present of this chapter to our Indian Secretary as a fitting reply. When will this farce of the lion painting himself cease?

But the victims generally belong to the poor mute peasantry whose existence is itself an anachronism in these vociferous opulent days. Recently the instructive lectures of the renewned hydraulic expert, Sir William Willcocks, have laid bare the hollowness of the policy pursued by the perpetrators of embankments. Yet, who is going to undo the evils, and when? On the contrary, it is quite likely that the embankments will be further strengthened as 'proof against future inundations'."[6]

The bold peasantry of North and East Bengal is the mainstay of the Government as it not only produces wealth in the shape of jute but is also the chief consumer of the imported British goods including textiles. Yet it is allowed to perish of hunger and starvation and drop down dead like so many flies.

The loss which the poor dumb, voiceless ryots have suffered is incalculable. In many places their cattle and very homesteads have been clean washed away. The Imperial Government appropriates all the export duty on jute and within the last few years it has coolly pocketed some 45 to 50 crores of rupees. If only one per cent. of this huge sum were released for the alleviation of their sufferings they might have been enabled to stand on their feet ; but then the orgy of waste and extravagance as shown elsewhere could not have been indulged in.

The lessons of the floods and famine that overtake Bengal every now and then are indeed manifold. They have afforded an excellent opportunity for a sort of national stock-taking and given us some idea of the difficulties against which we have got to fight for the progress of our national life, and the powers that are latent in us wherewith to fight them.

The Government of Bengal persistently tries to minimise the disastrous effects of the flood. It publishes a ridiculously low estimate of the flood-stricken area, and does not even

6 *The Bengal Flood, 1931* by Sailendra Nath Banerjee, Member, Board of Directors, Central Co-operative Anti-Malaria Society, Ltd., pp. 3-4.

think it necessary to open an All-Bengal Fund. Had the Government with its habitual red-tapism taken up the relief work, how much of the amount sanctioned for relief-work would have gone to swell the fat salaries and fatter T. A. bills of a whole army of officers? And, may be, more would have been spent on 'inspection' than on actual relief. *Voluntary organisations are certainly much cheaper and also more efficient, as they are not hampered by official red-tape.*

The floods have taught the youth of Bengal a lesson in discipline and determination. They have given us practical training in administering our own affairs. During previous floods, relief-works did not last for more than three weeks or, at most, a month, they partook of the nature of first aid only. The people were left to themselves as soon as the acuteness of the disaster was at an end. No attempts were made to restore them to their former condition, as far as practicable.

But, perhaps, the most significant fact about the flood is that it presents the problem of Hindu-Moslem entente in a somewhat more hopeful light. For the benefit of those who do not believe in the possibility of such an entente, let us point out that nearly 80 per cent. of the suffering population were Mussalmans, but nearly 99 per cent. of the help rendered—in men and money—came form the Hindus, and we are sure no Hindu ever grudged a single pice or a particle of energy that was spent on behalf of his Muslim brother. Political pacts and diplomatic compromises may or may not be successful, but this is unchallengeable that a lasting friendship can be permanently built on the strong foundation of such genuine sympathy and devoted service.

The flood has offered to our gaze a vision of United India. What is more important is that the flood has given us ocular demonstration of the fact that, inspite of her varying climates, different dialects, manifold dresses, rival religions, divergent outlooks, in the different provinces, India is to-day a living entity whose furthest limits palpitate with true humanitarian feeling even if only a part of it is adversely affected.

PART II

EDUCATIONAL, INDUSTRIAL, ECONOMIC AND SOCIAL

CHAPTER XVIII.

Insane Craze for University Education.

I. Mass-production of Graduates.

"For myself, I have used only one big book. For myself, I have had only one great teacher. The book is life lived. The teacher is day-by-day experience."—Benito Mussolini.

"I believe University life does more harm than good to most men."—Ramsay Macdonald.

"I am thankful to have had twenty-five years of the great University of public life."—Lord Haldane.

Repeated references have already been made to the degree-hunting mania of our youngmen. The feverish thirst for an academic hall-mark is the outcome of the ingrained belief of our students, and especially of their guardians, that a university degree is the only passport to a good job under Government, or to a professional career, *e.g.*, the law, medicine or engineering. The miserable straits to which the degree-holder has ultimately been reduced need not be dilated upon here. It is enough to mention that the market value of an average graduate, taking into consideration the vast number of the unemployed, does not exceed Rs. 25/- per month. Barely one per cent. of them is successful in life in the worldly sense, while thousands rush to their doom thoughtlessly. Many a young hopeful commits suicide when he is confronted with the matter-of-fact world, especially if he happens to be encumbered with the burden of a family.[1]

1 *Cf.* "A pathetic story was narrated at Coroner's Court at an inquest on Mrityunjaya Seal, aged 30. Seal had been out of employment for some time but recently he told his mother that he had secured a job. On the morning of March 14, he was found lying seriously ill and on being questioned he said he had poisoned himself. He died after removal to the hospital. In the letter found in his pocket the deceased stated he could no longer bear to see his mother and wife in privation. The story about his having secured a job was an invention to give some relief to his mother's feelings".—*Vide* Daily Papers, March 28, 1928. Such cases are cropping up frequently.

It is necessary that the attention of the country should be clearly drawn to the colossal waste of energy and national intelligence which we have allowed in the past by our scheme of University education. I shall allude to the most heart-rending analysis of the situation by no less a man than Mr. K. Srinivasa Iyenger who in the course of his Vice-Chancellor's speech in 1920 stated:

"Of 18,500 graduates of the University of Madras whose careers have been traced, some 3,700 have spent their lives in Government or administrative service; about an equal number are engaged in the teaching profession, and nearly 6,000 have gone into law. Medicine has had only 765 devotees, Commerce only 100, and Science a tiny fraction of the whole, 56. You will search in vain, for any solid contribution to the sum of human knowledge amongst this magnificent number of 18,500"

Again the Associated Press writes (1926):—

"Owing to large influx of candidates about one thousand four hundred and fifty in number taking degrees in person this year, the Syndicate of Madras University has decided to hold two convocations next Thursday, the first being held at 2 P.M., presided over by the Vice-Chancellor and lasting for about half-an-hour. The second convocation will be held at 4-30 P.M. the same day at which the Chancellor will preside".

The two Universities of Calcutta and Madras have become two huge factories for mass-production of graduates. As if these were not enough, a number of new universities have recently cropped up in quick succession. In U. P. alone four new universities at Benares, Aligarh, Lucknow and Agra have been incorporated. The Madras Presidency, not to be behindhand in this race, has got two more Universities—the Annamalai and the Andhra and the Central Province also claims its share in it. The Dacca University (Bengal) and the last if not the least, the Delhi University are also supplementing this work of mass-production of graduates and helping in this national waste of youthful energies. This inordinate, insane craze—almost a mania—for securing a degree has

been working infinite mischief—it has become almost a canker eating into the very vitals of intellectual life and progress. A serious drawback incidental to, and I am afraid, almost inseparable from the present ill-understood and misconceived notions of University training is that the youngman thus turned out betrays, as a rule, lamentable lack of initiative, resourcefulness and pluck when he is thrown upon the world and has to fight his way through it. While there is a gain in quantity there is a corresponding deterioration in quality. The average graduate is found to be a licensed ignoramus. In fact, in the course of several of my public lectures, I have not hesitated to say that the degree only serves as a cloak to hide the degree-holder's ignorance. He knows little and cares to know less beyond the irreducible minimum required for passing the examination.[2]

I am sometimes taxed by winners of academic distinctions with being unfair to them: "What", they exclaim, "do you want us to be so many Marwaris?" I tell them pointblank that I want nothing of the kind. I would stultify myself and my own life-work were I to preach the gospel of Marwari-ism in my declining years. What I strongly deprecate is that *every lad* should consider it the beau-ideal of his ambition to be the possessor of a degree. This point does not require elaboration. Some 25 to 30 thousand students are preparing for degree examinations under Calcutta University and two thousand more under Dacca University. The naked fact is unhappily lost sight of, that not more than two to three per cent. can ever be absorbed in the "services" and the professions. What of the

2 Cf. "As a matter of fact the custom is to buy the highest degree which can be got for the money. B.A.'s can be got for Rs. 25/- (in which case they certainly have some other employment; probably they are studying law). A wholetime B.A. can be got for Rs. 40/- and he will be the weakest of his kind; a disappointed man, without energy or physique, willing to let things go as they please—if a boy wants to learn, let him, and if he wants to misbehave, let him."—Michael West: *Education*, p. 178.

remaining 97 per cent. or so, who enter the world utterly unfit for the battle of life? If by some process of elimination only a picked number, say 3,000 (i.e. one-tenth) would go up for the degree, even then there would be more than enough to fill up the vacancies caused by retirement and resignation, and supply research men in their respective subjects and also future administrators, munsiffs, deputy-magistrates and high officers in the clerical services.

The following extracts from the "Indian Statutory (Hartog) Commission" (Interim Report—Review of the Growth of Education in British India), Sep., 1929, will throw additional light on the subject.

"Law in India, as in other countries, is a profession in which there are a few prizes for the specially gifted, and many blanks; the average pleader finds it difficult to earn a living.[3] Medicine and engineering can employ only relatively small numbers and the education of doctors and of engineers is expensive. There can be little doubt that one of the main attractions of the universities and colleges to men who have no taste for academic studies and insufficient qualifications for pursuing them, is the insistence on a university degree by Government and other employers as a passport to service. If Government were to abandon that requirement for all appointments in which it is not really needed, the pressure on the universities and colleges would probably be lessened. *We suggest that for many clerical appointments Government*

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3 At the Alipur (suburb of Calcutta) bar there are nearly 950 lawyers (B.L.'s and M.A., B.L.'s); I have been assured by some of the successful practitioners there that not more than 10 p.c., of them can earn a decent living. The pitiable condition of the *briefless lawyers* has become proverbial; e.g., *there are more lawyers than clients.*

At Barisal (a district town) I was told by a responsible authority that the average earnings of a pleader there did not exceed Rs. 15/- per month taking into consideration the vast number of starving briefless members. And yet the law colleges at Calcutta and Dacca continue to attract large numbers!

examinations comparable to the examinations of the Civil Service Commissioners in England and specially designed for the purpose they are intended to meet, might replace the requirement that candidates for these appointments should possess a university degree (the italics are mine). The appointments that we have in mind are purely clerical appointments and not appointments to the higher services for which the number of candidates is relatively small, and which do not materially affect the numbers in the universities.

"The Universities are overcrowded with men who are not profiting either intellectually or materially by their university training. To many hundreds, the years of training mean a waste of money and of precious years of youth; nor is it only private money which is wasted. Each student in a university or college costs in every country far more than his fees, sometimes five or six times as much, and this money in India comes in part from endowments, but very largely from the public purse.[4] If those students who now go to a university or a college without being really fitted for higher work, were diverted in large numbers at an earlier stage to careers better suited to their capacity, money would be set free for more profitable educational uses, and the training of the best men could be appreciably improved. The overcrowding of universities and colleges by men of whom a large number fail and for whom there is no economic demand has vitally affected the quality of university education"—*Ibid*, pp. 143-44.

4 *Cf.* "The average annual cost of educating a student, during the year, worked out at Rs. 755 in the Presidency College of which Rs. 301·5 was borne by provincial revenues; at Rs. 431·9 in the Dacca Intermediate College, of which Rs. 343·4 was borne by provincial revenues; at Rs. 515·5 in the Hooghly College, of which Rs. 427·2 was met from provincial revenues, at Rs. 556·3 in the Sanskrit College, of which Rs. 509 was borne by provincial revenues; at Rs. 535·3 in the Krishnagar College of which Rs. 435·6 was borne by provincial revenues and at Rs. 285·3 in the Rajshahi College of which Rs. 192·6 was borne by provincial revenues."—(*Vide* "The report on Public Instruction in Bengal during the year 1927-28").

II.—University Graduates *vs.* Self-taught Men.

As a striking example of how much can be achieved in the literary world by a man of debilitated constitution, devoid of academic culture, the life of Henry Thomas Buckle, historian of *Civilisation* (1821-1862) may be cited. He was a very delicate child and under medical advice "his parents were careful not to over-stimulate his brain * * * he scarcely knew his letters at eight, and till eighteen had read little but "Shakespeare", the "Pilgrim's Progress" and the "Arabian Nights". He was sent to a school but was soon withdrawn from it.

At the age of seventeen Buckle's health had improved. In 1850 he could read nineteen languages with facility. Throughout his brief span of life a sense of the danger of overwork made him careful in not reading excessively at a time. Yet by methodical habit he had managed to read some 22,000 volumes. A reader of the *History of Civilisation* will be at once convinced that every page of it bears impress of mature thinking and vast erudition.

George Eliot, the great novelist, was at school between five and sixteen but had no college education. She was an immense reader and well conversant with German and Italian.

Elizabeth Barrett Browning, the poetess (1806-1861); was also practically self-taught. Her gift for learning was extraordinary; at eight years old she had a tutor and could read Homer in the original holding her book in one hand and nursing her doll on the other arm. She was of delicate health all her life.

Macaulay, to whom the progress of Western Education in India is in no small measure due, was a great exponent and protagonist of the current belief that the "men who were first in the competition of the schools have been first in the competition of the world." "Look at the list of wranglers and of junior optimes", says he, "and I will venture to say that, for

one man who has in after life distinguished himself among the junior optimes, you will find twenty among the wranglers.[5]

"But the general rule is, beyond all doubt, that the men who were first in the competition of the schools have been first in the competition of the world".

Macaulay cites among others the name of Warren Hastings in illustration of his argument, but somehow he clean forgets Robert Clive, who was the despair of his parents, being, according to general opinion, voted a dunce, and who, to quote our authority, "was shipped off to make a fortune or to die of a fever at Madras" (*Essay on Lord Clive*).

This eminent writer will be made to rebut once more what he lays down. Speaking of his favourite hero, William of Orange, he says: "Meanwhile he made little proficiency in fashionable or literary accomplishments. * * * He was little interested in letters or science. The discoveries of Newton and Leibnitz, the poems of Dryden and Boileau, were unknown to him".

We read again of John Churchill, hero of Blenheim (afterwards Duke of Marlborough), that "his education had been so much neglected that he could not spell the most common words of his own language; but his acute and vigorous understanding amply supplied the place of book-learning".[6] A descendant of his—a scion of the great historic family founded by him—Mr. Winston Churchill showed but poor promise of his future eminence as a school-boy. His father Lord Randolph was in despair about him, and was at one time anxious to seek for him a poor job in the Cape Government. It is true that till the time of Gladstone, Cambridge and Oxford culture was a characteristic feature of parliamentary government. "It was noted that when Palmerston made his Government in 1859 his Cabinet held six Oxford first-class men (three of them double-firsts), and out of the Cabinet four first-classes. Between 1850 and 1860—my Oxford days—the clergy held the education of

5 Trevelyan: *Life and Letters of Macaulay*, vol. ii, pp. 344-45.

England in the hollow of their hands. Their day was soon to be over."[6] Morley's *Recollections* vol. i. p. 12. But even during Gladstone's life-time there were notable exceptions: John Bright was innocent of academic culture; and another great figure, Joseph Chamberlain, prided himself, to quote his wife's own words, on being a "man of business" (a screw manufacturer); W. H. Smith, who subsequently became the leader of the conservatives in the House of Commons, "had spent his youth and early middle-age in building up, almost literally with his own hands, and by none but the most honourable means, an immense business which supplied an urgent and growing public need, and which yielded him an ample fortune."[7]

[4] Messrs. Burt and Broadhurst as representing labour constituencies made their presence felt in Parliament and the latter, if my memory serves me right, was a member of the later Gladstone Ministry. John Burns the Labour Leader was also a member of the cabinet in 1914.

Let me cite an instance from recent history of one who made his mark in the diplomatic services, namely, Sir Harry Parkes. "As an orphan lad he had joined relatives in Macao, had started in the consular service at fifteen, made a name in the capture of Canton and as ruler during its foreign occupation, and later as climax of adventures, had been tortured at Peking while the Anglo-French forces approached. Now at thirty-seven he was transferred to Japan as Minister".[8] Two more remarkable instances are quoted below:

Lloyd George's romantic triumph has been frequently likened to that of Disraeli. The two careers are manifestly similar in certain of their salient features. Unlike their predecessors in the British Premiership neither of them had had the advantage of a University training. On the contrary both of them were self-taught and had had to rely on their own native

6 Macaulay: *History of England.*
7 Oxford and Asquith: *"Fifty years of Parliament"*, vol. 1, p. 164.
8 I. W. Hall: *Eminent Asians*, p. 161.

resources in the pursuit of the most cherished of their ambitions".[9] Men risen from the ranks—often horny-handed sons of toil—devoid of academic culture have been known to develop remarkable powers of speech and soar to sublime flights in eloquence and rise to high eminence as statesmen. The subject has been admirably treated by Lord Curzon in his "Rede Lecture" (1913) entitled *Modern Parliamentary Eloquence.*

"Rather do I look forward to a revival in the country of eloquence in other and more popular shapes adjusted to the requirements of the times. Just as the oratory of the Georgian era was attuned to an aristocratic age, and that of the mid-Victorian epoch to middle-class ascendancy, so does it seem to me likely that the democracy will produce an eloquence, perhaps even an oratory, of its own. Should a man arise from the ranks of the people, as did Abraham Lincoln from the backwoods of America, a man gifted with real oratorical power and with commanding genius, I can see no reason why he should not renew in England the glories of a Chatham or a Grattan. His triumphs might be less in the Senate than in the arena: his style might not be that of the classics of the past. But he might by reason of his gifts climb to the topmost place where he would sway the destinies of the State and affect the fortunes of an Empire. Symptoms of such a power and style are sometimes visible in the declamations of Mr. Lloyd George.* * * In the House of Commons some of the Labour Members are eloquent speakers, notably Mr. Philip Snowden and Mr. Ramsay Macdonald".

Of the three speeches regarded as the supreme masterpieces and "part of the intellectual patrimony of the English-speaking race", two have been credited to the "backwoodsman" Abraham Lincoln especially the one delivered at the Gettysburg Cemetery on November 19, 1863.

During the late War, in America glib-tongued university

9 Edwards: *Life of D. Lloyd George,* vol. ii, p. 637

men were often found wanting, and the services of matter-of-fact businessmen had to be requisitioned to meet the emergency.

"America seems to have followed Edison's advice in choosing 'men capable of doing work' for the heads of various organisations needed in connection with the war. We may well believe she picked her best men. Of these, Mr. Daniel Williard, who was in control of all transportation work,' [and now President of the Baltimore and Ohio railway, one of the best in the U. S.] began life as a railroad labourer, then worked as an engine-driver and gradually rose to his present position. Mr. Vanderlip, a banker, was the Chairman of the British War Loan Committee in the United States. He then became assistant to the Treasury Secretary. He is the chief of the sixth biggest bank in the world. He began life as a reporter. Mr. Rosenwald who is in charge of 'war buying of finished products', began life as an errand boy. He belongs to a large mail order house in Chicago and is reputed to have an income of a million dollars a year. Mr. H. P. Davison, a banker, formed a Committee of bankers to help in war organisation. As he made £200,000 before he was twenty years of age, he could not have spent any undue time on his education".[10] Hankin: *The Mental Limitations of the Expert*. pp. 55-56.

Similarly Lord Rhondda and Sir Eric Geddes as business magnates did signal service during the late war. The climax has, however, been reached in the present labour Cabinet: "Yesterday, we published a group photograph of the new labour Cabinet. Of its nineteen members five had a Public School or University education, and two others have University degrees

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10 Cf. Many instances have been adduced of highly developed business ability in badly educated persons and we have even found reasons for suspecting that education, despite its advantages in other respects, checks the development of the instinct.—Hankin: *The Mental Limitation of the Expert*, p. 51.

• • What is required in education is to develop the boy's intelligence, not by prematurely stimulating his reason, but by stimulating his common sense by the methods above described."—*Ibid*, p. 127.

by examination. The days when Cabinets were drawn from Eton and Harrow seem finally to have passed. Of the last four Prime Ministers of England only one has been a Public School and University man, and more than two-thi. .. the present British Cabinet have not the qualifications for a Calcutta Social Club. The way to high office in Great Britain no longer lies through the old channels. Men like Mr. Joseph Chamberlain, Mr. Lloyd George, Mr. Bonar Law, and Mr. Ramsay MacDonald have broken down the old tradition. The Universities will have to look to it—they cannot allow the belief to grow up that they are no longer turning out men of the highest ability".—*The Statesman*, 29th June, 1929.

Mr. Ramsay MacDonald has given us a glimpse of his early career ; says he :

"The first employment I obtained was at the Cyclists' Touring Club, addressing envelops, at a wage of ten shillings a week. That, however, was only temporary work, and I have known what it is to walk about London with nothing in my pocket, with debt hanging over my head, and with nothing to do".

Mr. MacDonald had a thirst for learning and was anxious to enter a University, but poverty stood in his way. "I however," says he "do not regret not having been to the University ; in fact, I believe University life does more harm than good to most men"

A few more specific instances may be quoted here: Sir Josiah Child, the Commercial grandee of the East India Company in the time of William of Orange (1691) "who in wealth, and in the influence which attends wealth vied with the greatest nobles of his time" began his career as an apprentice, sweeping one of the counting houses of the city. "But from a humble position his abilities had raised him rapidly to opulence, power and fame." (Macaulay)

Recently, Mr. Will Irwin has written an account of the formative years of his classmate, President Hoover ; he says: "At the age of eleven he fed and curried his employer's horses

milked the cows, helped with the furnace and attended school. As office-boy at Salem, he suddenly developed a taste for engineering and the brand new Leland Stanford Junior University afforded him the opportunity of combining education and working for a livelihood."

From "Log cabin to the White house" is a common thing in America.

Some of the great masters of English literature owe little or nothing to an academic career. Johnson, Gibbon and Carlyle kept some terms at the universities but they have left only disparaging remarks of their obligations, if any, to their *alma maters*. Bernard Shaw himself perhaps the greatest of the living English writers tells us that he had to become a clerk at fifteen; he therefore could not have secured the benefit of a college education.[11] Spencer also was practically self-taught. When his *Social Statics* was written he had none of the preparation known as academic culture. As he himself says "when with my uncle, from thirteen to sixteen, my acquirements were limited to Euclid, Algebra, Trigonometry, Mechanics, and the first part of Newton's Principia. To this equipment I never added".—*Life*, p. 417.

"To the University of Oxford I acknowledge no obligation; and she will as cheerfully renounce me for a son as I am willing to disclaim her for a mother. I spent fourteen months at Magdalen College; they proved the fourteen months, the most idle and unprofitable of my whole life.

* * * *

"In the University of Oxford, the greater part of the public professors have for these many years given up altogether even the pretence of teaching.

"It has indeed been observed, nor is the observation absurd, that excepting in experimental sciences, which demand

11 H. G. Wells, though he studied biology under Huxley was once a draper's apprentice in a Portsmouth Store.

a costly apparatus and a dexterous hand, the many valuable treatises that have been published on every subject of learning may now supersede the ancient mode of oral instruction.

"If I inquire into the manufactures of the monks of Magdalen, if I extend the inquiry to the other colleges of Oxford and Cambridge, a silent blush, or a scornful frown, will be the only reply.

"As a gentleman commoner, I was admitted to the society of the fellows, and fondly expected that some questions of literature would be the amusing and instructive topics of their discourse. Their conversation stagnated in a round of college business, Tory politics, personal anecdotes, and private scandal: their dull and deep potations excused the brisk intemperance of youth.

"Dr.—well remembered that he had a salary to receive, and only forget that he had a duty to perform".—Gibbon: *Autobiography*.

III.—University Education—A Handicap to Success in Business.

Mr. Gilbert Brandon in a recent article reproduced below and entitled: "University men in business—how they fare in England" expresses his decided opinion that a University degree is rather a disqualification and a handicap in the way of success in life, as far as trade and business are concerned.

"When one considers the great captains of industry, one has to confess that most of them have not been University men, but mostly men who have risen from the ranks by sheer hard work, coupled with a peculiar sense, which, for want of a better term, we can call, the Money-Making Sense.

Employment of Public School Boys.

"One gentleman advocates strongly the employment of Public School boys. My experience has been that the average English Public School boy does not make an efficient business-

man. The prevailing idea of the English Public School is that it is a place for breeding gentlemen and the whole curriculum is based on these lines, with special attention to sport. I have watched many Public School boys in business and they appear to me to be more interested in sport than in work. Their eyes are always on the clock waiting for the hour when they can get away for golf or tennis.

"One finds that the average Public School boy objects to 'touting for orders', as he himself calls it. It is beneath his dignity and he really feels that his sphere in business is to sit at a desk with a row of bells with which he can ring for his subordinates, give orders and, of course, sign letters with a flourishing signature.

Oxford Wanting

"I have studied many products of the Classics and they all seem to be lacking initiative and originality. "They have what one might call the 'typically Classical mind When an acute situation arises they can quote very aptly what Socrates has said, but they show an appalling lack of power to carry out the said gentleman's advice or embark on a scheme of their own."

Mr. Andrew Carnegie, in his *Empire of Business* writes: "The absence of the college graduates in the list [of the industrial magnates] should be deeply weighed. I have inquired and searched everywhere in all quarters, but find small trace of him as the leader in affairs, although not seldom occupying positions of trust in financial institutions. Nor is this surprising. The prize-takers have too many years the start of the graduate; they have entered for the race invariably in their teens—in the most valuable of all the years of learning, from fourteen to twenty; while the college student has been learning a little about the barbarous and petty squabbles of a far distant past, or trying to master languages which are dead, such knowledge as seems adapted for life upon another planet than this, as far as business affairs are concerned; the future

captain of industry is hotly engaged in the school of experience, obtaining the very knowledge required for his future triumphs."[12]

"In the education of a businessman", says an American writer, "it must never be forgotten that his future life will be a life of action and not of study. Great care must therefore be taken that the health be no impaired in struggles for useless honours, that the feelings be not suffered to grow over-sensitive in useless contemplation."

If I were young again!

Opportunities for Youngsters.

Sir Thomas Lipton, businessman, millionaire, sportsman, rose from poverty and obscurity. In an interview "Who would succeed" he presents his attitude towards life in his characteristically virile manner.

"Over sixty years ago, I worked in a warehouse shop in Glasgow for half-a-crown a week. At that time, I believed that the dominant feature of my character was my conceit. And the passing of the years has demonstrated to me over and over again that a man can have no better asset than a supreme self-confidence.

"In those, early days, when I was toiling six days a week for less than six pence a day, I promised my mother that she should have a carriage-and-pair before very long. It was no empty promise—many years before my dear mother died she could have had a dozen carriages.

12 *Cf.* The late Mr. B. N. Basu while a member of the India Council requested a colleague of his, connected with a Banking House, to get a young Bengali apprenticed to his bank. Learning that the young man was over 22 years and was a graduate, he shook his head and said "My young friend, you have wasted the most precious period of your life, and your case, I am afraid, is hopeless. We take in office-boys of fourteen years of age, who have passed through a grammar school. They do all the drudgery of sweeping the rooms; dusting the office, of running errands, and in the intervals pick up knowledge in accountancy, book-keeping etc., and in this way, they in time become full-fledged experts ready to take up responsible positions".

My mother inspired me:

"If I were young again! If I could roll back the years and start over again—why, I should just set out to live my life as I have it.

"I should, however, be sure that I possessed two invaluable qualities—a great devotion and respect for my mother, and confidence in my own ability. These are the qualities for which I look in the youngman who wants to get on. "In the first place, a man's mother can be his inspiration. To-day, I know that I owe everything to the woman who gave me the urge to succeed, who was behind my every effort—my every undertaking.[13]

"And in the second place, of what use is all the cleverness in the world if you have not the courage of your convictions, the courage to rely entirely upon yourself?

"I see no need for the public school and university education for the youngster who is going into industry. They equip him with learning that is of little practical value, and they take up valuable years—time that should be spent in earning instead of spending.

"Why should a youngman stay at school until twenty-one or two? By that time, he might have worked his way up into a position where he can command respect and a salary. As it is, the average university product is valueless in business, and has to begin like some glorified office boy.

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[13] Similar tribute has been paid by Carnegie to his mother.

English or European parents of humble origin and circumstances are often persons of fair degree of education and intelligence. The parents of Robert Burns, Andrew Carnegie, Mussolini and Lloyd George may be cited as instances.

Cf. "This is where the children of honest poverty have the most precious of all advantages over those of wealth. The mother, nurse, cook, governess, teacher, saint, all in one; the father, exemplar, guide, counsellor, and friend. Thus were my brother and I brought up. What has the child of a millionaire or nobleman that counts compared to such a heritage?"—Andrew Carnegie: *Autobiography*, p. 31.

"If I could begin all over again I should want no better education than the child of any working man received. I should for ever be straining at the leash, anxious to get out into the world and prove my mettle.

"I should go into trade, as I did sixty years ago, I should set out once more, to feed the country, for there is never lessening in the public demand for food. My business would not be at the mercy of any passing whim or fancy—I should deal in something that must ever be popular.

"And having begun, I should keep before me certain fixed ideals. I should determine never to lose a customer, but forever be making new ones. I should set out to "serve", so that no one would ever be dissatisfied. I should make it my boast that I gave the utmost for the least, that my trading set a fine example. I should again try to make each customer my friend, and let him feel that he commanded my entire personal attention.

Young men in Blinkers.

"In short, I should apply all those proved and trusty rules of my life experience. And over them all would be the influence of my mother, urging me on to bigger things, guiding me to better things.

"It would be a great adventure. To-day the fight for success is so much stronger, so much more exhilarating.

"The man who sets out as a lone fighter finds himself immediately up against big interests, concerns that would shoulder him out.

"To-day, however, he has many an opportunity to prove himself. The obstacles mean little to the youngster who would succeed".—*The Pearson's Weekly.*

Lord Cable[14] and Lord Inchcape (as Mr. Mackay) started

14 The career of the late Lord Cable (of Bird and Company) affords another illustration of the well established fact that grit and ability are more than a match for any combination of adverse circumstances. It

from the lowest rung of the ladder. The former was an apprentice at only one hundred rupees per month, which, for an Englishman, must be regarded as ridiculously low.

"It is well that youngmen should begin at the beginning and occupy the most subordinate positions. Many of the leading businessmen of Pittsburgh had a serious responsibility thrust upon them at the very threshold of their career. They were introduced to the broom and spent the first hours of their business lives sweeping out the office. I notice we have janitors and janitresses now in offices, and our youngmen unfortunately miss that salutary branch of a business education. But if by chance the professional sweeper is absent any morning the boy who has the genius of the future partner in him will not hesitate to try his hand at the broom. * * * I was one of those sweepers myself".—Andrew Carnegie: *The Empire of Business*, p. 3.

"About forty-five years ago a fresh-faced, stocky Lancashire boy stood behind the counter of a small grocer's shop in Bolton. There was nothing about him to attract special notice except his eyes. They were of a brilliant, gleaming, arresting blue. No one could be quite ordinary who has such eyes. No artist could have caught all their various lights. That boy was one day to be the Viscount Leverhulme. I had this description twenty years ago from a very old Bolton man who knew William Lever and his father well. The boy is now a merchant prince, and one of the richest and most adventurous men in the British Empire.

"I look back more than fifty years. The young Lever's short period of education was soon to be exchanged for a busy life".—Lord Birkenhead: *Contemporary Personalities*, p. 277.

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is the story of a poor Calcutta boy, although he was born in England. he came to India at a very early age, and received in Calcutta all the schooling, he ever had, who made his way to the front in the teeth of a thousand obstacles until he came to preside over the Bengal Chamber of Commerce, amassed a large fortune."—*Statesman*, March 31, 1927. Lord Cable began his career at an early age on Rs. 100/- a month.

The two great Masters of Iron and Steel are Henry Bessemer and Andrew Carnegie. Bessemer, who revolutionised the process of steel-making which goes by his name, "knew nothing of metallurgy but that did not daunt him. He read everything that he could find on the subject". Andrew Carnegie, the multimillionaire and philanthropist, who began his career as a telegraph message boy, repeats almost the same story. He was, in one word, self-taught. Carnegie was neither an inventor nor a master of science. But few men have been more successful in adapting a great invention to the needs of his time than was Andrew Carnegie in seizing upon the Bessemer Process and using it for the expansion of American and world industry. It will thus be seen that it is not so much the possession of expert technical knowledge, but organising capacity, resourcefulness and initiative which are essentials in the making of a businessman or a captain of industry. As Dr. Hankin rightly observes:

"To the businessman the expert usually appears as an unpractical crank. Common sense, according to the businessman, is the sense by which money is made and it is a sense of which he finds no trace in the expert.

"I thought he was only a scientist, said an aggrieved businessman, when describing to me how an expert, by using his knowledge, had once got the better of him in some commercial matter".

"The late Mr. Pierpont Morgan, the American banker, once said, 'I can hire any expert for 250 dollars and make 250 thousand dollars with the information he gives me, but he can't hire me to do it for him'. This dictum seems to sum up accurately the limitations in business capacity of the average expert". Yet another striking example.

Mr. Bata's Career.

"Reputed to have made £10,000,000 in ten years, Mr Thomas Bata, of Zlin, Moravia, the world's biggest manufac-

turer of boots and shoes has arrived by air in Calcutta during an Eastern tour.

Mr. Bata's rise to commercial eminence forms a spectacular romance of modern business. Son of a poor village cobbler he peddled, during his boyhood, boots and shoes from door to door, and now at the age of 55 he owns the world's biggest footwear factory turning out more than 160,000 pairs of boots and shoes a day and employing 17,000 hands."—*Daily Papers*, January 8, 1932.

In India also the few who have succeeded in founding big industries owe little or nothing to scientific or collegiate education. The late J. N. Tata, with whose name the Tata Iron Works and the Bombay Hydro-Electric installation will be inseparably connected, had some sort of liberal education it is true, as he studied for two years at the Eliphinstone College, Bombay; but he had never picked up even an elementary knowledge of Chemistry, Electricity or Metallurgy. Sir Sarupchand Hukumchand of Hukumchand Electric Steel Co. does not even claim that much of literary distinction. He is, however, eminently gifted with shrewd business instincts which have raised him to the position of a great Indian industrialist. Bengal can boast only of one eminently successful businessman, namely, Sir Rajendra Nath Mukherjee. I am never tired of repeating from many a platform that it would have been an evil day for Bengal, if Rajendra Nath had come successfully out of the Engineering College. Had he been a degree holder (B.E.) he would have been a failure in life.[15]

Confining myself to Bengal I find that "Biswanath Matilal, lately the Dewan of the Salt Golas, began life on eight

15 *Cf.* "The great attraction is the comparative certainty of subsequent official employment. Eight out of ten students of the Engineering Department find employment under Government, and only one out of ten finds private employment. Mr. Heaton, the Principal, has remarked that this discloses in a startling manner the state of arrested industrial development in Bengal."—T. G. Cunning: *Technical and Industrial Instruction in Bengal*, 1888-1908, part I, p. 12.

rupees a month, and is generally understood to have amassed twelve or fifteen lakhs of rupees before he was required to relinquish his office. The father of Babu Ashutosh Deb, the founder of a wealthy family, served a native master at five rupees a month, before he became a clerk in the late firm of Fairlie Ferguson & Co. in whose employ, and also in that of American merchants—who named one of their ships after him *Ramdulal Deb,* he accumulated a colossal fortune. The present Dictator in the money-market, the Rothschild of Calcutta, Matilal Sil [nearly a century ago] began his career with the humble salary of ten rupees a month."—Vide *The Indian Mirror* Aug. 14, 1910.

The late Syamcharan Ballav, who was one of the biggest jute-balers of his day, started from a very humble beginning He was not "educated" in the ordinarily accepted sense and yet he had business capacity and acumen of the highest order

Again, Mr. Ghanasyam Das Birla, has little or no University education ; had he had to go through the heavy drill of passing examinations and the nervous strain involved therein he would have become "fuddled" and lost all initiative. His views on trade, industry and currency problems command attention.

Mr. S. C. Banerji of the Tata Construction Works Bombay, began his career as a lower grade clerk in the Assam Bengal Railway. Though not even a matriculate, he has shown wonderful talents and initiative. His firm undertakes big contracts not only of ordinary buildings but also of railroad making ; whereas those who have been regularly trained as professional engineers only hanker after jobs.

Mr. Nalini Ranjan Sarkar is another successful man of business. He is, I believe, only a matriculate. He has of late been much in evidence in connection with varied economic problems and his speeches and monographs are illuminating.

By a curious coincidence almost at the moment I was writing these lines, my eyes accidentally caught the telegram conveying a notable pronouncement by Mr. Morris who has been called the "Ford of England". "For business, a

University training is an absolute waste of time. Though there are exceptions, I never found a University training any use to my organisation. The University won't confer the qualities essential to Commerce, but obliterates them if originally present. It does not give an understanding of the workers' psychology which is essential to carrying on large scale business. Under-graduates absorb the idea that life is an easy thing, and pay too great attention to sport and pleasure".

My intimate connection with several industries in Bengal for the last forty years has given me a rude shock and sad experience in this respect, as far as University products are concerned.

If one took a census of the greatest of world's men and women, I fear he would be surprised to discover that the majority of them owe very little to Universities or indeed to any educational system.

It should be noted that men like Andrew Carnegie, Henry Ford, Thomas Edison, Lord Cable, Ramsay MacDonald, Thomas Lipton &c., though not college-bred, have not been lacking in culture. In the midst of their pre-occupations in earning their bread and laying the foundations of brilliant future careers, they found ample time by means of self-tuition to make up their deficiency in education.

I have often cited a list of men who have earned fame as scientists, businessmen and statesmen, but who began their career as common labourers, or have risen from the ranks. Such men owe every thing to their own unaided exertions. Take again a few more instances of men who have shown a rare combination of successful business instincts with reputation as politicians and men of science. Goschen and Lubbock (Lord Avebury) were bankers. The former was a statesman, and the latter a politician and also an eminent man of science. It is, however, unusual to come across such a harmonious blending of qualifications in one and the same person, nor is it necessary for the welfare of the commonwealth. Modern society is based upon division of labour. I have always held

that the economic misfortune of Bengal is mainly due to the fact that *every* youngman (as also his guardian) thinks that unless he had an academic hall-mark he would be a failure or a ruined man.[16] If only the most promising and 'scholarly' son were reserved for a university career, and the remaining sons after going through a secondary course of education through the medium of vernacular were early apprenticed to a business or mercantile career the economic ruin of Bengal could have been averted.

"The State furnishes the schooling only to those who deserve it because of their merits, and leaves to other initiatives students who are not entitled to a place in the State's Schools.

"This puts on the scrap-heap the democratic concept which considered a State school as an institution for everyone—a basket into which treasure and waste was piled together. The middle class had considered the school at its service and therefore did not respect it. The demand was only for the greatest indulgence possible, to reach as quickly as they could their merely utilitarian purposes such as a degree or a perfunctory

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16 The Principal of the Sa-Adat College in his own College Magazine writes under the heading:

"Otherwise my life is ruined"

"Some students secure inadequate marks in the Examination. Natural. They are detained. Natural again. They feel dejected. One by one they gravely walk in and solemnly submit: "Send me up, sir, please; otherwise my life is ruined" "Ruined!" "Oh yes, sir, ruined, lost, doomed forever and forever" he reiterates once, twice, thrice * * as many times as one may be pleased to lend him his ears. He can scarcely walk out when another of his class steps in and occupies his place. And then another and another and another * * all in the same solemn gait, with the same solemn words expressed in the same solemn voice with the only possible difference of the addition of a series of sighs, of groans or of tears. * * * * Pass the Examination if you please, and work honestly steadily and strenuously for it so long as you are a student; win the brightest laurels of academic distinction if you can; but never for a moment forget that university education is only one among many and multifarious modes of the mere preparation for the actual battle of life lying still ahead."

passing to promotions." Mussolini.—*My Autobiography* p. 261.

IV.—Manual work held in contempt—a great National danger.

Sir Edward Clarke in a recent speech said "Look at King's College, the University Classes in London, and all over the country! There are crowds of boys working hard putting in extra hours at study after their ordinary day's work." It is from these materials that the labour Ministry has been recruited and there is no reason to lose faith in the British boy who is as ambitious now as ever. In fact, it is reading with a purpose, that matters.

Those who read with a purpose will always score over those who read in schools or colleges simply because their parents or guardians compel them to do so. They have no real vocation or calling as pointed out elsewhere.

Effect of outside work on School success.

The most successful boys in school are those who are compelled to work to support themselves. The mere act of work does not appear to influence success, whereas the motive does so. These results appear from a study reported in *The Vocational Guidance Magazine* (Cambridge: Mass) by Francis T. Mc. Cabe of Harvard University. It was conducted at the Rindge Technical School in Cambridge, Massachusetts, having an enrolment of one thousand boys from thirteen to twenty years. We read:

"The study was conducted with a group of 758 boys, without previous knowledge of the boys' characteristics or capacities. The only selection made was an attempt to obtain by sampling a true cross-section of the entire student body. Each boy was asked to answer questions concerning his employment after school hours. From the data accumulated, the workers, those who work after school for pay, and the non-

workers, those who do not work after school, were separated into two main groups.

"The distribution of the two worker groups according to school marks seems to indicate that those who are compelled to work, take the school work more seriously and try harder.

* * * *

"Of the two groups of workers, those obliged to work show greater success in average school marks."

"Those obliged to work are more successful in average school marks than either the non-workers or the workers for extra money."

"The student who works his way through college is a familiar figure in American University life. A survey made recently by the Federal Office of Education covering 48 land-grant colleges—public institutions supported by State and Federal grants, and teaching primarily 'agriculture and the mechanic arts'—shows that nearly half the men and a quarter of the women students were 'gainfully employed'.

"Some 13,000 men and 3,000 women students in these colleges are entirely dependent on their own efforts during their stay at the college. The average under-graduate not holding a regular fulltime job, earns £30 to £70 a term and from £40 to £50 during the summer vacation."

Krarup-Nielsen referring to a newspaper correspondent in China incidentally observes:

"He (Tribune) like many other prominent American journalists, had had a varied career before he took his degree at the university and became a newspaper man—(had) reminiscenses of the time when he worked on the railway lines as a labourer".—*The Dragon Awakes*: p. 77.

It by no means follows that every college-student in America is of the stern stuff described above. Years ago, Emerson drew a contrast between a city-doll, representing our average college-educated milk-sop and the self-made man of tough fibre; says the great philosopher:—

"If our youngmen miscarry in their first enterprises they lose all

heart. If the young merchant fails, men say he is *ruined*. If the finest genius studies at one of our colleges and is not installed in an office within one year afterwards in the cities or suburbs of Boston or New York, it seems to his friends and to himself that he is right in being disheartened and in complaining the rest of his life. A sturdy lad from New Hampshire or Vermont, who in turn tries all the professions, who *teams it, farms it, peddles*, keeps a school, preaches, edits a newspaper, goes to Congress, buys a township, and so forth, in successive years, and always like a cat falls on his feet, is worth a hundred of these city dolls. He walks abreast with his days and feels no shame in not 'studying a profession', for he does not postpone his life, but lives already. He has not one chance, but a hundred chances".

Mr. C. J. Smith, who has for 40 years handled big jobs, is now (Dec. 1931) just on the point of retiring from the vice-presidency of the Canadian National Railways, at the age of 69. His weighty opinion may be quoted here:

"I think our Canadian idea of letting a boy work during his long summer vacation at whatever business he is going in for is a good one. He learns the practical side as well as the other. And there's nothing like learning young.

"When I was young there was no such thing as golf or billiards, and when I got into 'civilisation' about the age of 30 I couldn't play pool or golf properly."

I have given elsewhere numerous instances of men born in humble circumstances rising to the foremost position in several walks of life by dint of their own efforts. I shall conclude with brief accounts of the early life of four eminent leaders of men. Mr. Ramsay Macdonald thus speaks of his early days (speech on Nov. 26, 1931):—

"The past throws up its hands in simple bewilderment like the old Lossiemouth fisher-wife who greeted me a few years ago and said with homely, kindly, and simple expression, 'Well, Jimmie, wonders will never cease' ".

"There is a great deal in going through life not by broad, smooth highways but by the unmade, rather muddy byways where you get human comedy and tragedy, where you meet ups and downs, sacrifices and kindnesses, without stage preparation, straight from the essential facts of life."

Mr. MacDonald then recounted two memories of his boyhood. "It is a very hard frosty morning" he said, "We have got up while it is still dark, and we have trudged a mile or two along the frost-bitten road. We get into a potato field where that extraordinary machine which used to go round knocking up the potatoes is in full swing. I am leaning on a basket into which the potatoes are being gathered, and find it difficult to keep the tears out of my eyes on account of my frost-bitten hands. Somebody who is overseer of us all comes and gives me a slap on my frost-bitten ear. The very thought of it makes me cringe with pain. Sitting sometimes on the Front Government Bench and allowing my thoughts to wander that incident comes back to me."

Mr. MacDonald also recalled from his youthful days an old character educated for the Church who for some reasons or other which the Recording Angel could explain came to wheel his barrow along the streets of Lossiemouth. "On a little board on the front of his barrow a volume of Tacitus. He read his Latin and Greek as he called out, 'Rags and bones, rags and bones,' A day never to be forgotten by me was when seeing me with a certain book in my hand, he said "Are you interested in these things?" I said, "I am" and he then said "Take that" and gave me a volume of Herodotus's history, and for months afterwards supplied me with the first library I ever had".

Another Labour Leader—the Rt. Hon. George Lansbury has recently (Dec. 1931) related the story of his early life and the hard struggles he had to go through; one or two extracts only are quoted below:

"The most eventful episode in my life, apart from those of a political and public character, took place in the years 1884-85 when, with my wife and three children all under four years of age, and a younger brother who was not eleven, I emigrated to Australia."

* * * *

"At last I got myself started at stonebreaking ; it was a kind of blue metal granite which broke both my heart and my hands while hammering at it."

* * * *

"This new job was a parcel delivery man. I stuck at it for the rest of the time I was in Australia. My wage was fifty shillings a week and a house to live in at a place called Toowong, five miles out of Brisbane.

Through the tropic rain.

"My first night's work on this job was most exciting. The parcel cart was open and the rain came down as it does come down only in the tropics. I had about 200 parcels to deliver at different places, and I did not know a single one of the addresses to which I had to go.

"I started about 6 p.m. and delivered the last packet of sugar about 4 a.m. the next morning, having done the round which everybody had been sure that being a new chum, I should not be able to do. This achievement gave me a standing with the firm which I held for the six months I was with them.

"There is not much to tell about the work, except that the hours were from eight in the morning until twelve or one o'clock next morning on many days."

Again of Mussolini we read—

"He roamed the country . . . as a mason's labourer. * * * * * * * "In Switzerland, where the winter is very severe, the building trade is brought to a standstill. Mussolini then turned the spare time to the best account by attending university classes and those of evening schools. In Scotland, I may say, the same thing happens as in Switzerland. Youngmen, engaged in building, are thrown out of work in winter owing to the cold, and, curiously enough, many do exactly what Mussolini did, they attend school and university classes. I remember some who were taking the arts course at Edinburgh University when I was there. But Mussolini went one better than my countrymen,

for he did not entirely abandon manual work. He would sometimes find employment as a shop-keeper's porter or message-boy, when he would carry parcels of goods to the merchant's customers on his broad shoulders, or in a basket slung over his arm, or, if the goods were heavy and the houses distant, in a hand barrow. The money he thus earned helped to pay his class fees and his board."—A. Robertson: *Mussolini*, pp. 49-50.

Of Masaryk, his biographer (Mr. Street) writes:—

"During these years (1868-69) perhaps the most impressionable in a boy's life, he (Masaryk) had to support himself, and for a part of the period his brother as well, in addition to pursuing his studies. His mother managed to send him a few florins from time to time, but that was all the assistance he could expect to receive. For the rest he had to depend upon his own resources.

"He lived at first in the house of a shoemaker in the Nova Ulice, together with half a dozen other students as poor as himself. For their lodging, laundry and breakfast the boys each paid two guldens, or about three shillings, per month. As may be imagined, conditions at the shoemakers' were not luxurious, but the boy and his companions contrived to enjoy themselves in their own way."—*Op. cit.*, p. 29.

I should not fail to mention another instance—Lord Reading came to Calcutta the first time as cabin boy, the second time as the Viceroy.

While in Europe and America dignity of labour is held high in estimation, the reverse is the case in India especially with boys and youngmen who have been to school not to speak of college. Mr. Abdul Karim, late Inspector of schools, thus gives vent to his agonised feelings:

"In the course of my tours, while visiting a school in the district of Backerganj, I found it would die for want of funds and pupils. I asked the leading people of the locality to meet me at my green-boat after the inspection was over.

While I was urging upon them the necessity of maintaining the school by contributing to its funds and by admitting their boys into it, I heard a man whispering that he would give *'Hari Loot'* (A Hindu thanks-giving ceremony) on the day the school would be abolished. When the people were gone, I enquired of the local Inspector of Police, who came to see me why the residents of the place were disgusted with the school. What he said convinced me that the people had reason to be dissatisfied. The place was largely inhabited by petty shopkeepers, who required the assistance of their boys in selling goods and in keeping accounts. But no sooner were the boys admitted into the school than they gave themselves airs and looked down upon shopkeeping as unworthy of the people who could read and write. From what I learnt at this and subsequent inquiries, I have reason to think that the existence of a school in their neighbourhood has been a source of much trouble to many a peasant family. Even against his wish a peasant has to send his boy to the neighbouring school either through the persuasion of the Guru, or on account of the importunity of the boy who wants to join the other boys of the village at school. As soon as the boy enters the school he becomes a different creature. He changes his manners, habits, tastes and even his name. * * * * * *

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His parents not only lose his assistance in tending cattle and cultivating fields, but are also obliged to supply him with good clothes, an umbrella, besides books and writing materials at a cost far beyond their means. He becomes a burden upon his family and not infrequently a curse to society. For, he creates factions, fosters litigation and sometimes even teaches perjury and forgery".—(*Some Political, Economical and Educational Questions* pp. 5-6). Such a state of affairs will drive every lover of his country to despair. It is time that we recognised that institutions which breed contempt for manual work are not assets but the most dangerous enemies to national progress.

V.—Defects in our Secondary Education—colossal waste of energy due to a foreign tongue being the medium of instruction.

The enormous waste of time in the education of a Bengali youth is simply staggering. Six or seven years of the most precious period of a boy's career are simply wasted in learning or picking up the intricacies of a foreign tongue through the medium of which he is made to acquire knowledge. Such a monstrous and perverse arrangement does not, I believe, obtain in any other country under the sun. Education should always be imparted through the mother-tongue of the learner —the language of his nursery. This is so self-evident that it scarcely needs any elaboration or justification. An English or Scotch lad pores intently over the contents of Dickens' *Child's History of England* or Scott's *Tales of a Grandfather* or *Robinson Crusoe* or *Gulliver's Travels* or *Alice in Wonderland*. He learns a good deal from his papa or mamma. He greedily devours accounts of travels, adventures, polar expeditions, of the climbing of the Kilimanjaro or the Andes or the Himalayas and does not wait to be told that none of these enter into his prescribed text books. Imagine for a moment what would happen if the English lad were compelled first of all to learn Persian or Chinese or say German or Russian and then had to read through the medium of such a tongue. When we speak of a man being well informed we do not usually consider the medium of language through which he has picked up his knowledge. We are blindly following a pernicious system, which more than anything retards the acquisition of knowledge.[17]

17 While sending this portion to the press I find in the "Report of the Matriculation Regulations Committee" just out (June, 1932) that the University has practically adopted the suggestion that in the Matriculation stage, examination in all subjects other than English will be conducted through the medium of one or other of the major Vernaculars. As such my contention about the medium of instruction referred to in this chapter might be considered as a matter of historical importance only. But I find to my disappointment that the new

Plato, Hegel and Kant ; Confucious and Mencius, the Bible and the Koran ; the Ramayana and the Mahabharata are almost always read in translation. No one, except perhaps the scholarly linguist, would learn Greek, German, Chinese, Hebrew and Arabic, to have the pleasure of reading them in the original. Even an average educated Hindu reads the epics named above in the versions of Tulsidas, Kirtivasa and Kasiramdas. But here in India we have adopted the most unnatural system and have to pay a heavy penalty for it."

History, Geography, Geometry, Algebra, Arithmetic, Hygiene and the elementary principles of science and political economy can easily be taught through the medium of Bengali. English should be relegated to the position of a second language.

Those who want to be real scholars will study not only English but also German and French ; only English ought not to be looked upon as the medium of instruction. A man of education must, in the first place, be one well up in all-round information, and he can gather it best, and in the minimum of time, if he does so in a language he learned to lisp in.

As indicative of the huge waste of time and energy of our youngmen during the most precious and determining period of his life the following table may be quoted here ; it

regulations take away with one hand what they give with the other. The burden of mastering the intricacies of a foreign tongue will still hang heavy on our boys. In fact, so much importance is attached to English that three papers are allotted to it, while History and Geography —two important subjects—will have only one; Mathematics one and the Major Vernacular languages only two papers. Thus History and Geography each will claim only *one-sixth* the attention bestowed upon English, which will tax all the energy and attention of our boys at the cost of other subjects. Moreover, he will be incapacitated in the economic fight where general knowledge and common sense are required and not a high proficiency in a particular language. As a matter of course the drawbacks under the existing regime will continue, I am afraid, in a still more aggravated form. The Report makes a surrender to "Imperial idea" as Mr. Monahan has it. (*Vide* poste p. 296).

gives the number of students, during the session 1930-31, preparing for the M.A. degree in the Calcutta University.

Subjects.	5th Year Class.	6th Year Class.
English	119	112
Mathematics	36	29
Philosophy	36	26
History	55	44
Economics	116	92
Commerce	23	20
Ancient History	14	17
Anthropology	5	6
Exp. Psychology	4	3
Comp. Philosophy	1	0
Sanskrit	19	20
Pali	2	2
Arabic	4	1
Persian	8	3
Indian Vernaculars	7	18
TOTAL ...	449	393

That the students as also their guardians do not bestow a modicum of thought in selecting the subjects for the highest degree is evident from the fact that English literature has the largest attraction. One naturally expected that the case would just be the reverse, for to learn the intricacies of a foreign tongue, involves heavy strain and sacrifice of patience and time, which might otherwise have been more profitably utilised. The syllabus of study again takes one's breath away. The list of authors with their works is simply staggering and occupies five and half pages in the calendar. The entire field of English language and literature is covered from old English down to post-Victorian period as represented by H. G. Wells, Conrad, Bernard Shaw, Arnold Bennet and Galsworthy.

I fully admit that there should be Indian students who would make a life-long study of English literature, just as there are scholars in England, France and Germany who have devoted themselves to Sanskrit learning. I should welcome an Indian Schlegel or Taine. But why should there be as many as 230 candidates preparing for the M.A. degree in English? They are fed on pemmicanized and tabloid-form of knowledge. No wonder that the average Master of Arts in English excites as much ridicule as pity. No wonder Mr. M. West, Principal, Teachers' Training College, Dacca, in his evidence before the Agr. Comm. says "the English reading ability of an M.A. is equivalent to that of an English girl aged 15, of a B.A. to age 14, of a Matriculate to age 10".

Mr. West may have unconsciously indulged in a bit of exaggeration ; I am afraid his remarks are not very wide of the mark, if applied to any average graduate.

Macaulay is often found fault with because of his famous Minute of 1835 in which he gave his verdict in favour of western education and thus ended the controversy between the Anglicists and Orientalists.[18] It is said that he forgot the claims of the vernacular. This does not appear to be a fair criticism, for he himself foresaw that in due course Indians imbibing western notions would themselves cultivate their mother tongue and write books and impart knowledge through its

[18] The particular passage which is regarded now-a-days as objectionable is given here :

"The whole question seems to me to be which language is the best worth knowing? * * * I am quite ready to take the oriental learning at the valuation of the orientalists themselves. I have never found one among them who could deny that a single shelf of a good European Library was worth the whole native literature of India and Arabia. * * I think that the natives are desirous to be taught English, and are not desirous to be taught Sanskrit or Arabic. *Minute* by T. B. Macaulay, 2nd Feb., 1835.

Pandit I. C. Vidyasagar as Principal of the Sanskrit College might be expected to be partial towards the Hindu Sastras; but he was more scathing in his denunciation of Vedantas than even Ram Mohan or Macaulay, *vide* his letter to the Council of Education (1853) in the

medium.[19] His prophecy was literally fulfilled, as we find that within twenty years of his famous Minute and even earlier Krishna Mohan Banerjee, Iswar Chandra Vidyasagar Akshay Kumar Datta, Rajendra Lal Mitra, and others began to produce works of merit in Bengali which were extensively read. It should not be forgotten that nearly twenty years before Macaulay's Minute, the leading Hindus had themselves founded a college at Calcutta (1816) by their "own voluntary contribu-

course of which he says, "For certain reasons, which it is needless to state here, we are obliged to continue the teaching of the Vedanta and Sankhya. That the Vedanta and Sankhya are false systems of philosophy is no more a matter of dispute". (For details consult Brajendranath Banerji's instructive article in the *Modern Review*, Oct., 1927, p. 405.

The fact is that Rammohan and Vidyasagar, erudite Sanskrit Scholars as they were, wanted to emancipate the minds from the thraldom of authority and tradition, as hitherto the theological bias had lain like an incubus upon the Hindu mind. What these great men had in view was that Western ideas should permeate our literature and not antiquated notions borrowed exclusively from Sanskrit and Persian. Ram Mohan knew well that if his countrymen were to be enlightened the vernacular must be the medium. Hence he not only conducted a periodical in Bengali—*Sambad Kaumudi* (1821) for the propagation of his views but began his crusade against *suttee* also in a Bengali pamphlet. Almost all the popular works of Vidyasagar are mere translations from the English originals and they are models of chaste Bengali. In fact both Ram Mohan and Pandit Vidyasagar are regarded as the fathers of Bengali prose.

19 The idea had been started of paying authors to write books in the languages of the country. On this Macaulay remarks :

"To hire four or five people to make a literature is a course which never answered and never will answer, in any part of the world. Languages grow. They cannot be built. We are now following the slow but sure course on which alone we can depend for a supply of good books in the vernacular languages of India. We are attempting to raise up a large class of enlightened natives. I hope that twenty years hence, there will be hundreds, nay thousands of natives familiar with the best models of composition, and well acquainted with western science. Among them some persons will be found who will have the inclination, and the ability to exhibit European knowledge in the vernacular dialects. This I believe to be the only way in which we can raise up a good vernacular literature in this country. Trevelyan : *Life and letters of Lord Macaulay*, vol. i, p. 411.

tions, for the instruction of their youth in English literature and Science." In 1822 again Ram Mohan Ray had sent a vigorous letter to Lord Amherst (*Vide*: ante Ch. XI) in which he earnestly pleaded for the teaching of Western Science and Literature and there are passages in it, which are almost interchangeable with those in Macaulay's Minute. Kasiprasad Ghosh, the first Bengali writer of English verse, whose poems attracted attention, had appeared in the field five years before Macaulay penned his Minute.

The fact is our forefathers themselves went mad over English education to the neglect of the vernacular. Thus we find that a public meeting was held on the 25th November, 1844, at the Hall of the Free Church Institution for the purpose of expressing gratitude to Lord Hardinge for his minute relative to the appointment of educated in preference to uneducated Indians in the Government offices. Here it is taken for granted that one could not be regarded as "educated" unless he mastered English first and then gathered knowledge through its medium. Hence an abnormal stimulus was given to learning English and an unnatural system adopted in our schools and colleges. This has led to the primary and upper primary schools, nay even middle English schools being relegated to neglect; Matriculation schools alone are popular and thrive, as they qualify pupils for the University.[20]

In the early stages, *i.e.* in the thirties and forties of the last century, it may have been necessary to give undue prominence to acquiring a knowledge of English so that the

20 *Cf.* "And the popular aversion to vernacular education remained just as strong as before. The report, 1852-5, notes the demand for English education which has arisen in every district, that those who through their unwillingness to make any local contribution, however small, towards the Hardinge (vernacular) Schools pay and pay willingly for English Education and found private institutions to impart it. *"It must, however, be confessed that the hope of lucrative employment rather than any desire for education itself mainly induces parents to pay for their children's instruction.* In Vernacular Schools no such powerful motive exists."—Michael West: *Education*, p. 153.

gates of Western learning may be flung open. But even then the mistake should not have been committed of compelling *every* boy to pick up his information through a foreign medium. The underlying motive all along has been the service-seeking mania. A parallel may be traced in the intellectual conditions of Czecho-Slovakia in the sixties. "Masaryk also cultivated a distinguished German style, and it was in this respect that his tutors found him in any way exemplary. That he should devote himself with such earnestness to the German language may seem to be a contradiction of his steadily developing Czech consciousness. But, in fact, it was not so. The Czech language had practically fallen into disuse as a literary tongue, although it was still employed colloquially and among the poorer and more illiterate classes. If he were ever to appeal to the educated world, it would be necessary for him to do so in the German tongue, which was current throughout Bohemia and Moravia. It could not be foreseen that this influence was later to be one of the most powerful factors in enabling the Czech people to follow the progress of modern thought in their own language". *President Masaryk*, p. 46.

Mr. West in his Bilingualism (with special reference to Bengal) discusses the subject at length from which I make the following extracts:

"Now there is an essential difference between a bilingual and unilingual country; in the latter only the few children of more marked linguistic capacity, or of wealth and leisure, at their own option study a foreign language, whereas in the former (the bilingual country) the average child and even the child below the average is compelled by hard necessity to acquire a second language. It is only with some difficulty that the child with linguistic capacity acquires an efficient knowledge of a foreign tongue; how much more liable to be unfruitful is the attempt of the merely average child and the child who is below the average? The clever child has time to spare; and average child has not. Even if the average child succeeds in obtaining the necessary command over the second language,

his success is too often bought at a cost of a reduction of the time spent on other subjects which he is unable to afford. He has thus the choice between Speech and Knowledge, —between linguistic and educational insufficiency. * * *

"Their need is not English to speak, not English to hear, nor to write, but English to read, in order that they may enter that vast repertory of knowledge which is contained in the richest of all languages."

Mr. F. J Monahan, who as Commissioner of two divisions in Bengal, had a thorough and intimate knowledge of Bengal and the Bengali in the course of his evidence before the Calcutta University Commission says:

"I think that some Englishmen who advocate the use of English as a medium of instruction in schools and colleges are influenced by natural enthusiasm for the Imperial idea. They value the English language as a bond of union in the Empire and dream of its becoming the common and universal language of India.

* * * "There are also many examples which show that to attain success in commerce or industry a very small amount of knowledge of English, or indeed of education, of any kind suffices. The millionaire Marwari merchant of Barabazar has not taken the trouble to learn English, and employs a Bengali B.A. on Rs. 40/- a month to conduct his English correspondence. *Though a good general education, including English, should be an advantage to an Indian in every walk of life, yet, if the main object were to make as many Indians as possible commercially and industrially efficient, probably the best plan would be to help them to acquire as quickly as possible at school some form of "pidgin" English, in addition to arithmetic and book-keeping, and apprentice them at an early age to a commercial or industrial business.* (The italics are mine).

"It seems to me that in a country like India, with its great variety of races, languages, civilisations, ideals, religions, and philosophies, it is a mistake to impose on the whole population one method of higher education through the medium of a foreign language and uniform sets of uniformity courses, at the same time making the University examinations the sole avenue to employment in the middle and higher ranks of the public services and in the professions. I think that a good deal of the discontent prevalent among Indians of the upper and middle classes is traceable to this. I would suggest that, on the one hand, University examinations should cease to qualify for posts under Government, sub-

ject, possibly, to certain exceptions in the case of technical departments, and that, on the other, the University should be organished on a more catholic principle, and should admit to affiliation colleges and other institutions of higher education teaching different courses, and using different languages as their media of instruction, only assuring itself that the standard of teaching is sufficiently high. For the great majority of students the most suitable medium of instruction would be their own mother tongue, or "vernacular"—to use the official expression —but, for some English would be a suitable medium of instruction."

I would conclude this chapter by repeating what I said at the Convocation address at Mysore in 1926

"If we begin by critically examining our methods in Indi (not only in your University) the first outrage that we find we committed was to make a foreign language our vehicle of instruction. It is surprising that this principal reason for our intellectual sterility was not discovered till very recently, and it is still more surprising to find that some of our well-known educationists even to-day continue to regard the relegation of the English language to an inferior position as fraught with disastrous consequences. To avoid misconception I must here, once for all, make it clear that the study of English or other important foreign languages is by no means discouraged; they, open up newer vistas of thought and ideal. A man of education must, in the first place, be one well up in all-round information, and he can gather it best and in the minimum of time if he does so in a language he learned to lisp in, while sucking his mother's breast—the language of his nursery. Arithmetic, History, Economics, Politics, Logic and Geography, in short the book of knowledge can readily be mastered in one's own vernacular. That should be the first stone in our educational edifice if we want to build well and high.

An educational authority on Bilingualism in Bengal has favoured me with his opinion reproduced here:—

LATE BEGINNING OF FOREIGN LANGUAGE.

"I believe that the reason why so much time is wasted on foreign-language-study in India is that the children begin to

study a foreign language much too early. There is a common idea that the younger the child, the better he learns the foreign language. This may be true under the age of eight ; a very young child may unconsciously pick up a foreign language better than an older person can acquire it by study. But there is a great danger that such bilingualism in early childhood may be detrimental to the mother-tongue. In any case, this argument has no application whatever to the case where the child does not hear the foreign language in his home, or to the case where he begins it as a school subject at the age of eight or nine. The best age to begin a foreign language is about twelve to fourteen, for by that time the child has mastered his mother-tongue, knows the principles of grammar, and has the mental development necessary for intelligent study. Moreover, by the time the children reach the age of fourteen, we know which of them need the foreign language and are capable of assimilating it."

"At present we teach English to vast numbers of children, who will never really have a great need of English, and who are intellectually incapable of mastering a foreign language. The numbers are so large that we cannot provide efficient language teachers ; so the teaching is bad. Moreover the size of class makes an enormous difference in the efficiency of language teaching. A child learns to speak a language by speaking it. It follows that in a class of sixty children each child speaks for only one minute per hour of school time,—or rather *half a minute* because the teacher is talking half the time. It is not possible, in my opinion, to produce any effective results in the speaking of foreign language with a class exceeding twenty-five boys, and even then the results can be obtained only by very highly skilled teaching. Similarly boys learn to write by writing. Writing is useless without correction. Unless the classes are kept small and selected, the teacher is overwhelmed with the masses of written work which he cannot correct, and the inferior boys write so badly that a large proportion of the teacher's time is wasted in correcting the

exercises of boys who are really hopeless. I believe that the most urgently needed educational reform in this country is the institution of a middle school examination and the absolute restriction of any teaching of English speech and writing to children who have passed the middle school examination."

VI.—The true Functions of a University.

It may be thought that I am out to preach a sermon against University education altogether. Nothing is further from my purpose. My object is to sound a note of warning against the feverish craze in our youngmen to secure a degree. *I only plead for a considerable elimination of candidates in the process of selection.* No one should choose a University career unless he feels that he has an instinctive call in that direction. A University should be a centre of scholarship, research and culture. Let those alone seek the portals of the academy who are prepared to dedicate their lives to the enlargement of the bounds of knowledge.

Laski observes in *The Dangers of Obedience*:

"I have no use for the lecture that is a mere substitute for books (p. 105).

"The University has failed when its students are not aroused to passionate discussions among themselves, or when the work they do fails to awaken them to the study of great books (p. 107).

"The student who is satisfied with pemmicanized knowledge has gone through the University with his mind closed; he has eaten facts, but not digested them" (p. 108).

"The great teacher is one of the rarest of human beings".

"His lectures, his criticism, his discussion must never become a system of formulas that he regurgitates year by year to students whom the academic tradition has already taught what they are to expect" (p. 114).

It is generally a grievance against the University, often ventilated in the newspapers that our young hopefuls, when they come out of the portals of their academy, are unable to

earn their bread. This attitude has become common in our country because the degree often supplemented by a competitive examination has hitherto been the passport to a professional career or a snug berth in the huge hierarchy of the bureaucratic system set up by the Government ; but as has been pointed out above there is at present ten times, nay, perhaps, a hundred times (I had almost said a thousand times) greater supply than demand. The discontent has begun to be vented upon the University system of education now in vogue. It is clean forgotten that the function of the University is to impart a liberal education which would extend the angle of vision and free the mind from narrow and contracted outlook so characteristic of the average businessman. As Laski says—

> "The business of a University is not the transformation of undergraduates into fountains of information? It does not seek to make men expert in their life's career. Its business is the very different task of teaching the student how facts are converted into truth", * * * * * "It seeks only to confer habits of mind which enable the student to weigh the significance of facts from the angle of philosophy. A mind receptive to novelty, capable of wisdom, inclined to moderation—these are the excellencies at which it aims. If the student enters upon his life-work with qualities of this kind, the University will not have lived for him in vain." *op. cit.* pp. 91-92.

Cardinal Newman very properly observes :

"Knowledge then is the indispensable condition of expansion of mind, and the instrument of attaining to it." *Idea of a University*, p. 129.

"It is, I believe, as a matter of history, the business of a University to make this intellectual culture its direct scope, or to employ itself in the education of the intellect." *ibid.* p. 125.

"Knowledge is capable of being its own end. Such is the

constitution of the human mind, that any kind of knowledge, if it be really such, is its own reward.' *ibid.* p. 103.

The testimony of some of the greatest of men in Science or in practical business will reveal the urgent need for reform in our Universities. "I would not give a penny for the ordinary College graduate", says Edison, "An educated man is not one whose memory is trained to carry a few dates in history—he is one who can accomplish things. A man who cannot think is not an educated man however many College degrees he may have acquired." (Henry Ford).

Laski has recently (1930) reiterated the same views almost in identical language, e.g. "They are factory methods of instruction, useful if we seek to turn out mental Robots by the thousand, dangerous if our ambition is the training of thinking minds"—*op. cit.*, 105.

About this mass production of graduates, Mussolini expresses the following opinion :—

> "We lacked intelligent systems of selection and vocational and educational valuation of individuals. A mill ground on and on turning out stock patterns of human beings who mostly ended by taking tasks in bureaucracy. They lowered the function of public service by dead and not living personnel. Universities created some other puppets in the so-called "free arts" as law and medicine.
>
> It was time that the delicate machinery of such consequence in the spiritual life of the Nation should be renewed by a precise, definite organic form." *Autobiography* p. 259.

"The true University of these days is a Collection of Books." says Carlyle in *The Hero as Man of Letters.*

Mr. H. G. Wells adopting as his text the above dictum[21] further amplifies it and pertinently observes :

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21 Carlyle has gone so far as almost to vote the abolition of the University. Says the philosopher :

"Universities are notable, respectable products of the modern ages. Their existence too is modified, to the very basis of it, by the existence

"Now the frank recognition of the book and not the lecture as the substantial basis of instruction opens up a large and interesting range of possibilities. It releases the process of learning from its old servitude to place and to time. It is no longer necessary for the student to go to a particular room, at a particular hour to hear the golden words drop from the lips of a particular teacher. The youngman who reads at 11 O'clock in the morning in luxurious rooms in Trinity College, Cambridge, will have no very marked advantage over another youngman, employed during the day, who reads at 11 O'clock at night in a bed-sitting-room in Glasgow."

The Universities however will serve a real need of the community if they are guided by proper ideals ; and these ideals will become immediately clear from Street's *President Masaryk* about his "outlook upon education, derived from his own experience, and from later observation of the pupils who attended his classes. His chief criticisms of the educational system of Bohemia were that it failed to cultivate independence of character, self-knowledge, and a sense of honour, and that it aimed rather at "cramming" for examinations than at laying a foundation upon which a specialised superstructure could be built later. His own case was somewhat exceptional ; removed from home influences, and forced by circumstances to support himself while he learned, he naturally acquired independence of thought. But for others, more favourably placed materially than himself, their school years were at best an imperfect period in the moulding of their characters. Their tendency was to inspire in them no higher ambition than that of acquiring

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of Books. Universities arose while there were yet no Books procurable; while a man, for a single Book, had to give an estate of land. That, in those circumstances when a man had some knowledge to communicate, he should do it by gathering the learners round him, face to face, was a necessity for him. If you wanted to know what Abelard knew, you must go and listen to Abelard. Thousands, as many as thirty thousand, went to hear Abelard and that metaphysical theology of his."

material security, a sort of exaggerated "safety first", which found its highest realization in a Government position, with an assured pension. In this Masaryk saw the fear of death, the fear of a life of enterprise, the negation of every sentiment that produces leaders among men.

"He bases much of his criticism on the fact that one forgets really everything that one learns at school. The object of education, therefore, in its earlier stages at any rate, should be not so much to impart a series of facts as to awaken an interest which shall induce the scholar to ascertain these facts for himself. The first essential in awakening such an interest is that the teacher should himself be keen on his subject. Masaryk's own enthusiasm for the subjects which he was called upon to teach is probably responsible for his success, first with the boys to whom as a young man he acted as tutor, and later, in Prague, with the students who attended his classes from all quarters of the Slav world." * * * *

"His aim was to produce, not a constant stream of graduates, all moulded alike and professing the same stereotyped ideas, but a race of individuals trained to think for themselves. The aim of education, in his opinion, was to lay the foundations which should enable the individual, when confronted with any particular problem, to find the solution for himself. From his earliest years the pupil should be taught, not a bewildering assembly of facts, but the habits of accuracy, method and concentration." *op. cit.* pp. 81-83.

Herbert Spencer rightly observes: "Even as appliances to intellectual culture books are greatly overestimated. Instead of secondhand knowledge being regarded as of less value than first-hand knowledge, and as a knowledge to be sought only where firsthand knowledge cannot be had, it is actually regarded as of greater value. Something gathered from printed pages is supposed to enter into a course of education ; but if gathered by observation of Life and Nature is supposed not thus to enter. *Reading is seeing by proxy*—is learning indirectly through another man's faculties instead of directly through one's own

faculties, and such is the prevailing bias that the indirect learning is thought preferable to the direct learning, and usurps the name of cultivation."

"Books are good enough in their way", says Stevenson, "but they are a mighty bloodless substitute for life."

Throughout my twenty-seven years' career at the Presidency College, I made it a point to lecture mainly to the junior classes Boys coming fresh from High Schools are very teachable as they represent so much clay in the potter's hand to be moulded into the desirable shape. My lectures were never based upon any particular text-books. If any pupil at the beginning of the session would ask me to recommend any particular text book, my invariable reply was: "Make a bonfire of it if you have already invested your good money in any, but simply follow my lectures." Of course, in the case of suitable text-books out of the ordinary run, which did not encourage cramming I would gladly make an allowance, but recommend them for consultation only.

A good portion of the session—July, August and September —was taken up in finishing the three elements, namely oxygen, hydrogen and nitrogen, as also their compounds. I took good care to give my pupils an historical insight by weaving into my lectures—stories of the discovery of oxygen—the contributions of Priestley, Lavoisier, and Scheele and their rival claims. Under the oxides of nitrogen, again, the atomic theory specially the law of definite and multiple proportions, was given prominence and Dalton was brought on the stage so to speak and a sort of living personal contact was sought to be established between "the makers of modern Chemistry" and my pupils.[22] In short, I took good care to have the groundwork on a solid foundation. To my dismay I often found that in several other affiliated Colleges, they had in the meantime not only finished a considerable portion of the prescribed course but begun to

22 Vide my *Makers of Modern Chemistry* based upon a series of lectures delivered at the Dacca and Calcutta Universities.

revise it. This brings me to the mode of teaching at present followed both in the Science and the Art courses. Not only students, but a large majority of teachers as well, have become the slaves of routine methods, as they follow closely the text books. The present system of teaching has become vitiated from top to bottom. If any teacher tries to throw additional light on the subject by going beyond the range of the prescribed text-books, the pupils grow fidgety and impatient. "Oh Sir", they say by way of protest, "you are dealing in extraneous matters; why should we stuff our memory with these? They are not required for passing our examination."

I should have been glad, indeed, if even the text-books were done justice to. Of late years, matters have drifted from bad to worse; even text-books have begun to be discarded and any number of short cuts and royal roads to learning has been substituted for them.[23]

In my student days, as I have elsewhere said, text books seldom satisfied my curiosity or craving; they were of use in that they served as reference books, and I took good care to hunt up the original papers in English, French and German periodicals, and go right through their contents. I have already said that I learnt Latin and French unaided. I got through some plays of Shakespeare along with other English classics to satisfy my hunger for study (*ante*. pp. 33-36). This naturally explains why I could not secure high places in the Calcutta University examinations and was regarded more or less as mediocre. To my agreeable surprise I find that a

[23] In practice it is found that the kind of literature most in favour consists of "aids", "digests", "compendiums", "One-day-preparation series", "made-easy series" and so forth. Students swallow these concentrated tabloids on the eve of the examination.

Report on Education in India in 1928-29 by the Educational Commissioner, quoted in *Nature*: Aug. 1, 1931, says:

"Of the University of Bombay, it is recorded that the average student does not bother to read his texts but is content to learn by heart second-hand opinions on them, gleaned from cheap bazar cram-books." This is true of 99 per cent of our examinees.

parallelism can be drawn between my school career and that of President Masaryk. I have always been inclined to look upon "greats" and "double firsts" as forced hot-house products.

"* * * In Vienna, as in Brno, he did not earn the wholehearted approval of his tutors, who regarded him only as a mediocre student, in no way up to the standard of his more brilliant fellows. The reason for this lack of appreciation was that Masaryk refused to be bound by the official curriculum, or to specialize upon any one branch of knowledge. In the atmosphere of Vienna the omnivorous thirst for knowledge which he had already displayed at Brno grew to a disproportionate extent. * * *

"His favourite reading at this period was to be found in the classics. The great works of the Greek and Latin authors he read in the original and in unabridged versions. The school texts failed to satisfy him; if a subject was worth studying at all, it was worth studying thoroughly.

* * * "He knew instinctively, even at the age of nineteen, that the ordinary learning of the schools would lead him nowhere. He felt, as most intelligent youths of his age are bound to do, that it lay within his powers to make a future for himself. What that future might be, he had as yet no idea. But he knew that if he were to attain to it hard work was a necessity, not only in acquiring the dry and often unfertile facts of the lecture-room, but in studying the great field of human knowledge which lay beyond them. To Masaryk it became necessary to understand the forces which move the world and the peoples inhabiting it." *op. cit.* pp. 40-46.

The mischief done by prescribing text-books has been referred to by the thoughtful writer quoted below who says: "The curse of University instruction is invariably the text-book." Again, "It is, moreover, fundamental that, in any subject, the student should learn its essentials at firsthand. If he is studying Shakespeare, he must read Shakespeare; it is not enough to know what Bradley or Kittredge has learned from reading him. If he is studying the history of political ideas, he must wrestle at firsthand with Plato and Aristotle, Locke and Hobbes and Rousseau; and if, knowing them, he cannot recite the endless catalogue of names a text-book will recite, he will not, as a rule, be much the worse off. If he is doing economics, it is fundamental to make him read Adam Smith and Ricardo; to wrestle with them will give his mind an

infinitely better texture than the ability to reproduce the leaded definitions even of a first-rate professorial manual." Laski: *op. cit.* p. 97.

In the course of my Convocation address (University of Mysore, 1926) I observed:

"Every one will admit that with an improved and broadened form of secondary education, the functions of the Universities will be stripped of many of their unnecessary appendages, making thus for real progress. The mechanical portion of training which ought really to be finished in the school stage, but which unfortunately is prolonged to the University Grade, will then greatly disappear and make these Universities real centres of learning and culture. I fear a good deal of explanation is necessary at this point, mainly because the present University system is as yet so full of routine details that its function is not very far removed from that of a Secondary School. Even in the post-graduate stage there are some who would insist on regular class exercises. I do not for a moment suggest that in the Universities under the cloak of freedom of choice of study, any indolence should be encouraged. The habit of industry in addition to intellectual capacity, should form the primary condition of continuance in the University. All that is implied is that the numerous compulsory class lectures and exercises that form to-day the basis of training in the Universities should be abolished if the intellectual capacity of University students is to develop. No doubt the lecture system gives an appearance of work, but if the student is himself willing to utilise his time, he would in most cases find that he gets through more work by absenting himself from these compulsory lectures. The greatest disadvantage of the compulsory lecture system arises from the fact that those that attend can only under exceptional cases ask questions to clear their difficulties and as is only natural, the teacher only presents his own viewpoint. To remedy these evils, the tutorial system is being introduced in some Universities; but although this latter partially supplements the incompleteness of the former method,

its general effect, so far as I am aware, is more of the nature of coaching without intellectual effect. Just consider the opposite system where the student is only given the names of some books and some questions on the problems dealt with therein ; he reads them, digests them and finds out his own answers to the questions by a process of thinking of his own, and then in the College Seminar discusses them from his own point of view with his colleagues and professors, preferably in limited groups. I am sure under such a system his powers of analysis as well as synthesis will be better developed, and his efforts, though irksome in the beginning, will soon enable him to carve out his own intellectual empire. All these, however, presuppose a sound secondary education.

"The question may be asked, if the lecture system be abolished, what should be the function of professors? The answer is obvious—the function of the professor should be mainly original research. Where he feels he has something to impart, he lectures, he discourses, and thus keeps the spirit of enquiry for ever alive and growing in this intellectual democracy. In the words of Bertrand Russell, skill in pedagogy in University teaching is no longer important. * * * * * *

"I have, so far, pointed out four of the main defects of our University educational system ; the medium of study, the absence of elimination, the system of compulsory lectures, and the non-participation of students in the organisation. Of the many other defects probably the one that deserves best consideration is the notion of regarding Universities as preserves for people with a hall-mark. This exclusiveness had a meaning so long as we believed that our system of preparatory education was infallible and that we could include within its fold all our educable people. Such claims are on the very face of them absurd, and when once we admit that the Universities should function as great research centres, their portals should be opened wide to any one, hall marked or not, who has given evidence of originality or keenness. It will be difficult for any educationist to assert that such a catholicity will not make for

much progress. On the contrary, knowing what a minute fraction of our people are receiving education, the hopeful uncertainty of full many a flower being born to blush unseen, would justify this departure from the orthodox notion of exclusiveness. If one took a census of the greatest of world's men and women, I fear he would be surprised to discover that the majority of them owe very little to Universities or indeed to any educational system. Shakespeare knew little Greak and less Latin. Our Keshab Chandra Sen and Rabindra Nath, Sarat Chandra Chatterjee, the prince of novelists and story-writers, Girish Chandra Ghose, the foremost of our dramatists, never crossed the threshold of a University.[24] Whilst on the one hand, however, the charge of handling mediocrity in the University system is not altogether unfounded the current Emersonian aphorism that "Universities are hotsile to genius", is, on the other hand, not wholly justifiable. Whilst Universities should be anxious to invite real workers for human progress, we on our part should see that they are rendered independent to do so."

If I may quote from Mr. Wells, "they (future Universities) will offer no general education at all, no graduation in arts or science or wisdom. The only students who will come to them will be young people who are specially attracted and who want to work in close relation as assistants, secretaries, special pupils, collateral investigators with the devoted and distinguished men whose results are teaching all the world."

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24 Both Girish Chandra and Sarat Chandra have been vastly read. To quote a writer in the *Patrika* (26-6-31) :—

"Girish Chandra was a voracious reader. He could digest very easily what he used to read. Like a scholar he confined himself in his younger days within the four walls of his sanctum for years together and this habit he maintained till he breathed his last." As for Sarat Chandra it is enough to go through his tiny little booklet নারীর মূল্য (The Price of Women). The references in the footnotes alone would convince one how well-read he is.

VII.—Glamour of Foreign Degree—Slave Mentality—Inferiority complex.

It is one of the manifold misfortunes of a subject people that it loses self-respect and esteem and learns to appraise everything from the point of view of the dominant race. I have often spoken of this tendency amongst our educated countrymen and the "cultural conquest" which has taken place in a very subtle, insidious manner. Our rulers, also, in a variety of ways, have encouraged the propagation of this spirit among our countrymen.

Emerson rightly says:—"It is for want of self-culture that the superstition of Travelling, whose idols are Italy, England, Egypt, retains its fascination for all educated Americans. They who made England, Italy, or Greece venerable in the imagination, did so by sticking fast where they were, like an axis of the earth. In manly hours we feel that duty is our place. Travelling is a fool's paradise."

In order to qualify themselves for the higher posts it was laid down that students should proceed to England and undergo all the expenses and hardships incidental to a training in a foreign land in a foreign tongue, thousands of miles from home, on the off-chance of success in a keen competition. In this manner a limited number of Indians during the last sixty years or so have secured admission into the Imperial Branches of the Civil Service including medicine and engineering. Graduates of the indigenous Universities have been admitted into the self-same services but they have as a rule occupied an inferior status. Thus a novel caste-system has been allowed to spring up. The I. C. S. and the I. M. S. and the I. E. S., as belonging to the superior hierarchy, give themselves airs and look down upon the so-called "lower" members of the respective service.

The glamour of a foreign, specially British degree or qualification has been the fruitful cause of a grave wastage of not only money but also of time and energy. A recent report

on the work of the Education Department, London, issued from the office of the High Commissioner for India says that the total number of students in England, or the Continent and the U. S. A. is not far short of 2,500. It has been calculated that about a crore of rupees is thus annually drained out of India, for which she gets a very poor and inadequate return. In the report the following weighty observations occur:

Grave Wastage

"Despite the rapid Indianization of the various services, and of the fact that the large majority of appointments formerly made in this country are now made in India itself, and that applicants with Indian university qualifications only are equally eligible, the belief that a candidate who has been to this country will have an advantage over his competitor who has stayed at home dies hard. It is this class which contains the largest proportion of those who are content to take vague courses in Arts or Science, etc., which, even if successfully completed, are not in themselves a qualification for definite employment of any kind, and, what is more important, could have equally well been taken at Indian universities ; of course, many students of this type read for the Bar, and are also to be found among the unsuccessful candidates at the London examination for the Indian Civil Service. It is significant to note that of the 266 candidates who appeared at the examination held in August 1928, no less than 170 were Indians, only 17 of whom were successful.

"It is among this class of students that there is also to be found those who have come with little or no prior qualifications which would entitle them to begin a degree or other course in this country. It is true that there are each year a few whose keenness and courage in making the long journey with totally insufficient funds and with no guarantee of regular remittances merit a success which is denied to them because of their lack of means and of the necessary preliminary training. But in the majority of cases it is not too much to say that they appear

merely to have drifted here, where they soon become a source of anxiety to the parents or guardians who have thoughtlessly allowed them to leave India, as well as a cause of trouble to university or other authorities in this country. If, as is frequently the case, their remittances fail, or for other reasons they come to the end of their resources, this Office is called upon to make arrangements for their return to India.

"These things have been said before, but they need to be repeated, if Indian public opinion is to be stirred to action. It is no exaggeration to say that India ultimately gains nothing, either materially or intellectually, from the exodus of an appreciable proportion of the young students who annually proceed abroad. They return to their homes in many cases disgruntled and embittered, with no definite qualification for employment of any kind and only *too often completely divorced in thought or feeling from the kindly family life and interests of their own people* (the italics are mine). It can scarcely be denied that there is each year a grave wastage which ought to receive the serious consideration of all those who have at heart the interest and welfare of the youngmen of India."

It is a remarkable fact that the holders of the foreign university degrees, though they consider themselves as sacrosanct, when weighed in the balance side by side with the local university products are often found wanting.

Take, for instance, metaphysics. The name of B. N. Seal stands first and foremost ; his encyclopædic knowledge is at once the envy and despair of Indian students of Philosophy. It is true he has not published any work which would make his name known abroad, but successive generations of pupils who have sat at his feet testify their obligations to his inspiration. He is like Socrates, who speaks only through his disciples.

Among other professors of Philosophy who have shone in the Calcutta University the names of Hiralal Haldar, Radhakrishnan and Surendranath Das Gupta stand conspicuous, and it is a singular fact that only one of them has an additional embellishment of a "foreign" university. It is true that the

latter two have gone to Europe but only in the capacity of interpreters of the East to the West.

It is a curious fact again that the most successful teachers of English in the Calcutta University or in the colleges affiliated are not those who have had their training at Oxford and Cambridge but the *locally* manufactured alumni. It is only necessary to mention the names of Lal Gopal Bannerjee, Heramba Chandra Maitra, Nripendra Bannerjee, Jitendra Banerjee, Profulla Ghose and the late Lalit Mohan Bannerjee.

Again, one who has kept terms and eaten dinners at one of the Inns of Court and returns as a Barrister-at-law has hitherto been allowed at the Calcutta High Court to enjoy certain privileges denied to his less-favoured comrade who practises on the strength of a degree of the local university and for this reason the former often gives himself airs.

The members of the legal profession are not, however, favourably circumstanced like those belonging to the "Heaven-born-services"—they have to work their way upwards by keen and fair competition in an open field. No wonder that the vakil often scores over the barrister and brings ridicule upon the latter. In forensic abilities a Vashyam Iyengar or a Rashbehari Ghosh has been simply matchless. Of the fifty six holders of Tagore Law-lecturerships thirty eight are Indians of whom again twenty-eight owe their training to local Universities. Their lectures include some of the best ever delivered and are quoted as standard works on Law. The names that come uppermost to my mind are those of Rashbehari Ghosh, Gurudas Bannerjee, Golap Sarker, Priyanath Sen and Ashutosh Mukherjee.

Coming to the departments of History and Archæology we find that those who have earned a reputation are Jadunath Sarkar, Akshaya Kumar Maitra, Ramesh Chandra Majumdar, Nalini Kanta Bhattashali and Surendranath Sen ; and on the Bombay side Bhaudaji who never learned English and the Bhandarkars—father and son—stand conspicuous. Needless to

mention that none of these were educated abroad and none except Dr. Sen, can boast of, or cared for, a foreign hall-mark.

Dr. Sen it is true has got an additional foreign degree appended to his name ; but he had already earned his fame as a graduate of the Calcutta University.

Taking into consideration the physical sciences it may be mentioned that Prof. Raman of "Raman Effect" is practically self-taught and all his brilliant researches have been carried on in the laboratories of Calcutta.[25] An account of the contributions of Dhar, Ghosh, Mukherjee, Saha, Bose, etc., has already been referred to (*vide* : Chs. XIII, XIV) ; it is only necessary to lay once more stress upon the fact that every one of them has distinguished himself by his work in the laboratories of Calcutta. It may be noted here that in some of my public addresses I have drawn attention to the fact that Ghosh and Saha did not care to have a D.Sc., (Lond.) suffixed to their names (though they rounded off their education in the London Colleges) for fear they would be thereby lowering the doctorate of their own alma-mater. Satyendra Nath Bose (of Bose-Einstein-statistics fame) although he went abroad for a time to rub shoulders with eminent mathematicians and physicists, also from the same motives, fought shy of a foreign degree.

In this connection the case of another beloved pupil of mine needs prominent mention—I mean Mr. Priyadaranjan Ray. (See ante p. 192).

It is a hopeful sign that much of what I have written above is now being slowly realised by the Indians themselves studying in England. At the Indian Students' Conference in London, (Dec., 1931) under Economic Value of English Degrees, Mr. Anath Nath Bose, of Viswabharati, said that it was a sad confession for Indians to make that a degree at an Indian

[25] The above was written long before the award of the Nobel Prize. The Calcutta Corporation in presenting recently (27-6-31) a civic address to Prof. Raman did well in referring to this aspect in his brilliant career :

"Working in an Indian Laboratory, with a purely Indian training you have achieved results of the highest value, thus demonstrating the high level of efficiency attained by this country in the matter of scientific research."

university had not the same economic value as a British university degree. "I do not believe," said Mr. Bose, "that a man cannot get as good an education from two years at an Indian university as he could from two years at an English university. Yet it is the man who takes an English degree who gets the high post and the fat salary. It is a question of prestige, and there is something political behind the prestige. We must remove the false idea of the prestige which is carried by a foreign degree. We must raise the status of the Indian university."

The training of Indian lawyers in England was deplored by Mr. M. V. Gangadharan. He said that he failed to see that an English trained Lawyer should be more effective in India than one trained in India. "I look forward to the day when an Indian student will be an object of curiosity in the common rooms of the Inns of Court," said Mr. Gangadharan. "Until recently" continued he, "there were some advantages to be gained by English-trained lawyers, but now that those advantages have been withdrawn there is less justification than ever for Indians to be trained in this country for a legal career."

I fondly hope it is high time that the attention of my countrymen were drawn to such insane craze for University degrees, foreign or otherwise. Bengal is drifting to an economic ruin for her thoughtlessness and it must cease. There is yet time to mend our ways. One must not, however, think that all I have said about the inordinate and meaningless craze of our students studying in universities, is levelled against the University Culture itself. University is for the gifted few and the rest—the worldlywise average—ought to think of the hard world and how to fit in it early. Useless and appalling waste of time is involved in pursuit of higher culture that counts for little when the real struggle for existence begins. This is my sad experience. The danger signal is already there and our guardians and students, who still hanker after University hall-mark and specially foreign qualifications, should ponder over it. For, to be forewarned is to be forearmed.

CHAPTER XIX.

Industry Precedes Technological Institute—The Great Illusion—Technology before Industry —The Cart before the Horse.

Scholarly China has failed to produce industry. Baker: *Explaining China.*

Some sixty years ago, Japan, when confronted by the need for developing industry within the shortest possible time, adopted the expedient of employing, for a term of years, a full complement of experienced foreigners to whom she gave administrative control over the plant which was built and operated under their direction. To every foreign manager, and to every one of his important subordinates, they appointed a Japanese assistant whose main duties were neither social nor ornamental, but the task of learning how to do the work as well as the foreign chief could do it. *Ibid.*

1. War and Industry.

In August 1914 the Great War broke out and it had a far-reaching effect on the Chemical World. England now keenly felt the superiority of Germany in Chemical Research and its application to industry. Her empire was world-wide and she could draw her supplies from every quarter of the globe inspite of the terrible blow inflicted on her mercantile marine by the German submarines. Ships laden with wheat from India and America, also with an abundant supply of provisions in the shape of tinned meat and canned fruits, and last but not least, of ammunition from the United States reached her shores with fair regularity. Germany, on the other hand, felt severely the stringency of the blockade, and though practically surrounded, she was able to protract the war as long as she did, because of the signal help rendered to her at this crisis by her chemists. Nitric acid and the nitrates are the chief constituents of the explosives; the nitrate of

sodium or Chili saltpetre as it is called is also an important fertiliser. Cut off from all external supply, the German chemists now began to look about and devise methods for the manufacture of nitric acid. Already in Sweden, her abundant natural source of water power had enabled her to start hydro electric installations and manufacture nitric acid direct from atmospheric air by means of the Eyde process. This source of supply was no doubt open to Germany but probably it was inadequate and meagre. She had to pay for it. Haber in Germany now perfected his methods of synthesis of ammonia direct from the constituent elements and its oxidation into nitric acid.

When the French Revolution broke out England entered into a coalition with some of the continental powers and France was subjected to a similar blockade. Her supply of soda and sugar was similarly stopped. The Republic made an appeal to the patriotism of her citizens to devise methods so that these two essential articles might be manufactured within her own borders. The result was the devising of the Le-Blanc process of making soda direct from common salt, and sugar from beet-root. All these only illustrate the force of the adage—necessity is the mother of invention.

The British chemists and scientists were not to be behind-hand ; they knew well that their great rival was far ahead in the chemical industry and they had a long way to travel to overtake her. The patriotic fervour of England was roused to the boiling point. A country which had produced a Newton, a Faraday and a Ramsay was not destined to lag behind even in chemical warfare. It is not necessary for me to relate here all that she did at this critical juncture. It is enough to say that she proved equal to the occasion. I received a letter from the President of the London Chemical Society invoking my humble help and co-operation in this respect. In the Chemical Department of the Presidency College, our ordinary work, including research by the advanced students, did not on the whole suffer. Chandra Bhusan Bhaduri who had been the

Demonstrator for the previous quarter of a century always took care to draw up the annual indents of the chemicals and apparatus with judgment. There was a reserve stock in our store, which could be drawn upon. We also succeeded in preparing some fine chemicals which hitherto could only be procured from Germany. But substantial service could only be rendered through our Firm, the Bengal Chemical and Pharmaceutical Works. Large quantities of nitric acid were supplied to the Government. The fire-extinguisher which one of our chemists had devised was very much in demand by the Military Department. Big assortments of these were sent to Mesopotamia for the depots of gunpowder and explosives. Sodium thiosulphate (the 'hypo' of the photographers) was also manufactured on a large scale by a process worked out by our chemists. Considerable quantities of caffeine were also extracted from "tea-dust" by means of a quickly improvised method and exported. In our workshop, along with other apparatus, chemical balances of the ordinary type of Sartorius were also constructed. Altogether the activity of the several departments was phenomenal.

India played a conspicuous part in the War. It was the Indian contingent which saved the critical situation at the battle of Ypres. She supplied the labour corps to Mesopotamia. Her railway plants were torn up by the roots and shipped off to Basra. The feudatory princes, from the highest to the lowest, came forward with a liberal supply of contingents and pecuniary help. No less signal service was rendered by the Tata Iron Works. The import of steel from Europe and America was stopped and the Government commandered its entire output.

Our rulers were profuse in their admiration for the great indigenous enterprises and the service rendered by them at this critical juncture. The Indian Industrial Commission which was appointed during 1916-18 made out a strong case for our country being made self-contained. "The experience of the war itself has been responsible for a new attitude on the part

of both Government and leading industrialists. They realise that it is necessary to create in India the manufactories that are indispensable for industrial self-sufficiency and for national defence and that it is no longer possible to rely on free importation of essential articles in time of War"

It is to be noted that I had occasion to submit a strong note of dissent to the Chemical Service Committee where I had to point out how most absurd and fantastic notions are entertained by our countrymen on the capability of a Technical Institute. Our Universities and Educational Institutions in general impart education which, it is urged, is too much of a literary character ; all that you have to do is to substitute technical for literary instruction, and industries will spring up magically all round.

Sir M. Visweswaraya's passionate plea for the creation of a Technological University is based upon this obsession :— e.g. "The educational system should arrange to train a sufficiency of natural leaders, such as administrators, entrepreneurs and technical experts taken from young persons qualified by their natural ability and aptitude. It is these two classes, namely persons of directing ability on the one hand and the great masses of working population on the other, that count most in the country's economic life. The two working together create business. The intermediate class, viz. foremen, middlemen and skilled workmen, will grow up automatically although they too will need, and will benefit by education appropriate to their class." *Vide*, "Fifth Convocation Address at Andhra University", Dec. 2, 1931.

Never was a greater delusion entertained. In every country, industrial progress has preceded progress in science and technology. Take the case of earthenware, porcelain and pottery. The very word chinaware carries us back to a remote past when China had made a marvellous development of the ceramic art, and Japan had also followed in her wake.

"Porcelain was not known to the Romans, although the Chinese have manufactured it for ages. [In *Memoirs of*

a *Chinese Revolutionary*, Sun-Yat-Sen giving an account of it says that: "the Chinese craftsmen who made this kind of porcelain were *ignorant of chemistry and physics.*" (p. 95).] Egyptian tombs also contain remains of vessels of a material closely allied to porcelain. The art of glazing pottery with the oxides of lead and tin was generally practised in Europe during the Middle Ages, and we find a description of the processes then adopted in the writings of the alchemists Peter Bonus and Albertus Magnus at the beginning of the thirteenth century. In the following century the potter's art made great strides. Agricola published many receipts concerning this manufacture. * * *

"Amongst those who have been most active in promoting the progress of the ceramic art the name of Bernard Palissy stands pre-eminent. Devoting himself with self-sacrificing assiduity to the production of glazed and coloured faience, Palissy laid the foundation of modern art pottery. His numerous writings, published during the latter half of the sixteenth century spread a knowledge of his experimental methods throughout Europe; but his works *L'Art de Terre et des Terres d' Argile* are confined to a description of the manufacture of earthenware; it was not until the year 1709 that the method of making porcelain was discovered by Böttichen and in the following year the celebrated porcelain factory at Meissen, in Saxony, was established.

"The mode of preparation of the Meissen porcelain being naturally kept secret, the King of Prussia instructed the celebrated chemist Pott to determine the nature of the materials used, and he, being unable to obtain any satisfactory information, was obliged to investigate the properties of those substances which might possibly be used in the manufacture, mixed in varied proportions; for this purpose Pott is said to have made no fewer than 30,000 experiments. To these we are mainly indebted for the establishment of the reactions which occur when various minerals are heated, and much valuable information

applicable to the manufacture of porcelain was thus obtained. About the same time Reaumur endeavoured to ascertain the secret of porcelain-making, and found that it is produced by the union of two earths, one of which is fusible, whilst the other is infusible at the same temperature, so that by the firing of an intimate mixture a non-porous, translucent mass is formed.

"His investigations were taken up in the year 1758 by Lauraguais, D'Arcet, and Legacy in France, and by the help of Macquer they succeeded in re-discovering the art of porcelain-making and in the year 1769 the celebrated porcelain manufactory of Sevres was founded.

"Even up to the beginning of the nineteenth century real porcelain was a material of great rarity and value. At the present day, however, it is cheap, and is employed for making the most ordinary articles of everyday use".—Roscoe and Schorlemmer: vol. ii, ed. 1923.

The historical account quoted above illustrates the almost insuperable difficulties besetting the path of a pioneer of industries in this country. Europe and Japan have got years of traditions and of inherited and accumulated experience behind her and they utilise their advantages with almost deadly effect against us by dumping into our local market the products of their factories.[1] As one in intimate touch with the Calcutta Pottery Works and several other industries I have realised what infinite patience, how much heavy initial loss, what ungrudging sacrifice of time and energy are necessary before a fairly successful start can be made.

The method hitherto followed has been to send a promising youngman abroad to learn the technique of an industry so that on his return home with the necessary expert knowledge he may be in a position to start an industry. This sort of easy-

1 At present Japan and Czechoslovakia are the formidable rivals in the Calcutta Market.

going and happy-go-lucky method has ended in disastrous failures.

When the youngman comes back with his special training he finds himself at sea. He must find capital, he must be competent to float a company, he must be able to organise business, he must be able to find raw material and sell the finished product. In other words, he must combine in himself several conflicting qualifications. Even if he is fortunate in securing a capitalist, as is sometimes the case, the real difficulty comes in when he actually begins his operations. The youngman sent abroad has perhaps been trained in a country where conditions about climate, raw-products and other factors differ materially from those prevailing in India and has generally no previous knowledge of local conditions in his own country. In Europe he has seen undertakings on a colossal scale with a huge capital outlay. Then again, trained artisans are always available there. Take the case of manufacture of pottery. In Europe the quality of sand, clay or feldspar is quite different from that in India.

Moreover, as is often the case, it may be found that his practical knowledge has been gained in a technological institute where only demonstrations on a small scale were given to supplement theoretical teaching and this knowledge is quite inadequate for the purpose of manufacture on a commercial scale. It is no easy task to secure access to factories so that the actual processes may be learned firsthand. Business concerns are not exactly philanthropic institutions. They are in no particular hurry to impart trade secrets, which they have picked up after years of labour and enormous expenditure of money.

Emerson says about trade-jealousy (*vide*, ante p. 93) that a chemist will easily confide his secret to a carpenter—a secret which he will not confide to his brother chemist for all the world.

A youngman sent abroad, however high his academic qualifications may be—even those of a first class M. Sc. in Chemistry—has often proved to be a failure. Similar mistaken

notions have prevailed even in China and have resulted in disastrous consequences. The following extract from a highly discriminating author, though it relates to modern China, applies with greater force to our own conditions. No apology is therefore needed for quoting it here *in extenso*.

"In the Straits Settlement and neighbouring territory, the Chinese have been able to gain a dominant position, not only in trade, but also in production; witness the tin industry. Under stable law, reasonable taxation and just adjudication of their disputes, as found in such places, the Chinese out-trade and out-produce every other race on the globe.

"Nevertheless, it will be well to remember that in these foreign places, the founders of the Chinese prosperity are men who went there in humble circumstances, many of them as coolies. By virtue of qualities which make a man leader of the gang, these men began to rise. Freed somewhat from the handicap of innumerable relatives, they had money to invest. Soon they could take a small contract. They remained close enough to their men to know which were capable foremen, which could take on greater responsibility, which were restrained by fear and which encouraged by success. They built up their organisation as they went along. Probably they learned to read enough English or Dutch to gain something of an outlook concerning their business. At the end of a long and industrious life they had so developed the rules and customs by which the business was conducted, that an elected president, or manager, could continue successfully along the lines laid down for him"—Baker: *op. cit.*, pp. 179-80.

"This is in sharp contrast to many of the factories which have been built in such places as Shanghai and Canton by Chinese capitalists. Such a man sends his sons abroad for an education. The sons study business administration and technical subjects. They perceive clearly the absurdity of large exports of raw materials from China and the re-import of the same materials in manufactured form. They realise the profits which could be made if this cost of transporta-

tion two ways, foreign tariffs and the high foreign scales of wages could be saved. It is easily demonstrated to father. They assure him that they know the business. Did they not graduate in Engineering? Did they not spend two summers in such a factory? Very well, father sets aside a certain sum, estimated to be enough to build the factory. The work begins; there are difficulties with contractors, delays, shoddy work which when rejected brings on a strike. The construction costs more than was expected; it always does. Father is rather grim about it, but he lends them enough to finish the plant. Work begins. There is trouble with the machinery; new machines always require a little adjustment. People begin to say things. Working capital begins to be scarce. Chinese firms invariably underestimate their needs in this direction. The turnover is much slower in China than in America. Collections are slower. Bad debts are more hopeless. If, on the top of these troubles, a quarrel between two foremen should bring about a strike, these unseasoned, youthful managers are almost sure to quit. They have 'lost face'. Their family has 'lost face'. They have other opportunities. They conclude to seek a government post. And another chimney is added to the hundreds which lend interest but not smoke to the skyline.

"Now, if these youngmen had worked up to their factory from penniless beginnings, had invested in it money which they had earned by the sweat of their brows and saved at the expense of their appetites, had learned the ways of materials, of contractors, of labourers by years of firsthand contract, not only would their difficulties have been fewer, but they would have so much at stake, that stake would be so much like their life blood, that every effort, every device, human and mechanical, every friend would be drawn upon to save it. There would be no light 'chucking up' of the job; no running away from the responsibility. Almost every important business experiences sooner or later a 'darkest hour'; live through that and success comes. But to 'live through' requires a fortitude which too frequently appears to be lacking in the otherwise well-equipped youngmen who essay the task of managing a modern factory in China." Again: "Scholarly China has failed to produce Industry".—*op. cit.*, pp. 180-182.

But the tragedy of the failure of "scholarly" men starting industries has been brought home to me by certain conspicuous instances. I have known Indian graduates in science (Ph. D.'s) in certain American and German centres of learning securing admissions into Chemical and Electrical Firms. On their return they have become simply travelling canvassers of those firms!

II.—Trusts and Dumping.

In Europe and America manufacturers have recourse to mass-production ; the average daily outturn of a factory would simply stagger one and it suits their purpose to do it on a colossal scale as they generally have a command of the world market. The opening of the Suez Canal coupled with the modern accelerated steamer service enables them to reach and capture distant markets ; to sell at a loss if necessary so as to starve out the indigenous rivals, already struggling for existence.[2]

Take for instance, the soap-industry with which I happen to be connected. Alkali, an important ingredient, has to be imported. The fluctuations in the oil market are great. It is necessary to study carefully the ups and downs in the prices in order to store up the raw materials in advance so that when a big contract is accepted, one may not be a loser in the bargain. While the Indian pioneer is struggling hard to get a foot-hold, his formidable foreign competitor, who has got a command—I had almost said a monopoly of the world market—is dumping his products so as to starve him out. In fact, it is a struggle between a dwarf and a giant.

The following two extracts which relate to the foundation of the Imperial Chemical Industries will throw additional light upon the subject.

"The easier and more extravagant life which is characteristic of the present day is made possible by modern methods and modern experiences. In the chemical industry there are many special factors which seem to us to have a bearing on the question of amalgamations. The manufacture of chemicals has undergone, and is yet undergoing, extremely rapid change ;

2 Cf. "A first-class power to-day is granted unquestioned the right to limit trade by anti-dumping or anti-luxury laws, but India's attempt in that direction is bitterly opposed as unpermissible." Upton Close : *The Revolt of Asia*, pp. 104-5.

consider the industry as it was thirty or forty years ago, and what it is now.

"In order to exist, the chemical manufacturer of to-day must keep in touch with the latest scientific information about his own products ; he must have a trained staff which can try in the laboratory experiments on a small scale, he must every now and then be prepared to risk spending a few thousand pounds on a large scale experiment, hoping that his judgment may be correct three times out of four or five. These large scale experiments are costly things, and it is far easier to undertake them when you have many works at your disposal, and can be confident that they are not, each of them, working at the same problem in secret and independently, and then finally setting up in the aggregate a capacity of production three times as great as the probable demand. Amalgamations, inter-locked companies, and such organisations are not novel. We have seen the United Alkali Company commence in 1890 as an amalgamation of many smaller concerns. We have watched the growth of the Dyestuffs Corporation, we have watched since about the year 1902 the growth of the many firms now forming the Brunner Mond group. We have watched the gradual development of the great enterprises included in the Nobel Industries. We have seen the amalgamation of several firms in the lead and white lead industries. It is sufficient that those who began to practice amalgamation five and twenty years ago are willing to continue the operation to-day. There are very many reasons for this. We will mention one only. Research is far easier for an amalgamation, and far less risky, than for an isolated firm.

"The board of the new company will form a supervising and connecting link in finance and policy, in exchange of knowledge and information and will enable the British Chemical Industry to deal with similar large groups in other countries on terms of equality, enable them to speak with a united voice and instead of leaving it to individual units to make arrangements for the world's competitive conditions as best they can

will give them all the authority and prestige and advantages of a great combination.

"In these days, when capital expenditure on modern chemical plant runs into many millions of pounds, specialisation of products and the most efficient use of capital as well as of technical processes become a vital factor to success, not only in the chemical industry, but in all modern industry.

"Modern mergers are not created for the purpose of creating monopolies or for inflating prices, when managed by able businessmen. They are created for the purpose of realising the best economic results which both capital and labour will share to the best advantage, to enable varieties of industry to form an insurance against fluctuations of markets and prices in individual products. In fact, for the shareholder, as well as for the workmen, fusion acts as a form of insurance against those risks in industry which are inherent and cannot be avoided, even by the most skilful management.

"A combination such as has been formed ought to be in a position second to none to keep the country and the Empire in the first and leading rank of an industry which is essential for the national safety and fundamentally the basis of a vast superstructure of other industries depending upon its products. —*Chemistry and Industry*, 1926, pp. 789-91.

III. Chemical Manufacture and Modern Industry.

"The growth of chemical manufacture revolutionises the whole character of modern industry. Nobody realises this better than Lord Melchett and his colleagues of the Imperial Chemical Industries Ltd. This concern now virtually controls the entire production of chemical goods in this country, as well as in most other parts of the Empire. It also extends its tentacles to foreign lands including Germany and America. The Imperial Chemical Industries was formed in 1926 primarily as a holding company for four others, namely—Brunner,

Mond & Co., United Alkali Co., Nobel Industries Ltd., and British Dye-stuffs Corporation Limited.

"By to-day it has a controlling interest in at least seventy-five concerns. The I. C. I. has an authorised share capital of £95 millions. Of this £76¾ millions has been issued.

"Profits for 1928 reached nearly six million pounds."

The almost insuperable difficulties which beset the path of a pioneer will be realised if one studies the mighty efforts made by the late J. N. Tata in founding the Iron and Steel Works inseparably associated with his name. Although he did not live to see the fruition of the great enterprise, it was he who conceived it and did all the preliminary pioneering, up-hill, arduous investigations, which cost him more than four lakhs and a half. With the help of able prospectors Tata carefully studied the local conditions favourable for the Works, namely an inexhaustible supply of the ore and the vicinity of coal and lime-stone.

He had samples of the ore and coal analysed both in England and Germany and himself undertook tedious long voyages to Germany and America in the evening of his life so that he might consult on the spot eminent experts in the iron and steel industry. It is not necessary to give here a detailed account of all that Tata's successors did to bring to a head the grand scheme. It is enough to state that the actual construction of the plant was begun at Sakchi in 1908 and the first iron was turned out of the furnace on December 2, 1911. During the War the Tata Works was of signal service to the country and the Government, and proved to demonstration what an indigenous key industry can do when the supply of an indispensable article is cut off.

But as soon as the War was over, Germany and Belgium began to flood the Indian market with cheaper steel with which the Tata's steel could not compete. A countervailing duty on imported Steel had to be imposed to maintain the very existence of the Company, out of which no less than

rupees two crores and a half have been paid to it in the shape of bounty in a couple of years. In other words, it means that even the poor taxpayer has to pay some 12½ per cent. extra for every T-iron or sheet of corrugated iron he uses.[3]

If the Tata Iron Works, with its huge capital, with the enormous natural advantages due to its location, with its trained experts, finds it impossible to stand world competition without considerable aid from the Government, the fate of the other pioneer industrial concerns in India can easily be imagined.

IV. Expert Knowledge *vs.* Business.

But the really serious obstacle in the progress of science and technology in India lies in another direction. Reluctance to take part in industrial concerns is inherent in our national character, especially in the Bengali. In Europe as also in ancient India the chemical processes involved in, say, metallurgy, dyeing etc., were all discovered empirically long before their modern scientific explanations were forthcoming. A few notable instances have been given in my *History of Hindu Chemistry*. The art of making and tempering steel, from which the famous Damascus blades were made, was first discovered in India where it remained stationary for at least a thousand years and has recently died out on account of competition with the West.[4]

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3 The above was written 4 or 5 years ago; latterly under *Imperial Preference*, 'the Works' is getting a royalty, so to speak, of 80 lakhs of rupees or more.

4 "Sir Robert Hadfield referred in this connection to an examination conducted at his works on iron from the famous Pillar of Delhi which is reputed to be over 1000 years old. He said that the analysis and tests to which the material had been subjected showed the iron to be a wonderful piece of work. It certainly had properties which enabled it to resist corrosion to a much greater extent than modern wrought iron.

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It was a most remarkable fact that in spite of all scientific advance which had been made in the metallurgical field the Pillar of Delhi was,

In Europe on the other hand, where science has ever been harnessed to the service of Industry, miracles have been worked in metallurgical processes.

At present by the Bessemer process twenty tons of steel are turned out in a single operation. Almost every day new improvements are being introduced. The addition of chromium, tungsten and vanadium to the steel has almost revolutionised steel-making for casting cannon and for motor-car frames. Similarly the sulphuric acid manufacture with the introduction of Gay-Lussac and Glover's towers and the 'contact' process has increased the output by leaps and bounds. Take again the modern rubber industry. The consumption of caoutchouc has been advancing *pari passu* with the requirements of this accessory of modern civilisation, especially in tyre-making. The conversion of raw material into the vulcanised product involves chemical processes of divers sorts. Nor need we refer to the dye-works in Germany e.g. the Badische Anlin Fabrik, some of which engage as many as 250 chemists or more. I have recently (1926) returned from a visit to Merck's at Darmstadt. The stupendous dimensions of the works filled me with awe and wonder. But the Research Department impressed me most. Here eminent specialists are at work not only in synthetically producing new drugs but also investigating their therapeutic effects.

Take again the several Electric Firms in America, England and on the Continent. The articles and appliances they annually manufacture, if valued in pounds sterling, will

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as far as he could judge, a metal of much better quality than anything which could be produced to-day. He made that statement with a full sense of responsibility. Some of the secrets of metallurgy had died out".—*Makers of Modern Chemistry*, p. 110.

Regarding the Pillar, Roscoe and Schorlemmer write in their Treatise on Chemistry: "It is not an easy operation at the present day to forge such a mass with our largest rolls and steam-hammers; how this could be effected by the rude hand-labour of the Hindus we are at a loss to understand".

amount to hundreds of millions. Here too the enormous development has been made possible by the harmonious co-operation between existing industries and laboratory researchers.

As Lord Melchett himself said, he sincerely believed "that the chemist will solve the present economic and industrial problems of the world." "Highly trained University men", he said, "are required for every part of our business activities to-day.....you have to carry the scientific idea through all business." He fostered in every possible way "the policy of aiding scientific research in the Universities of Great Britain and thus producing a continuous supply of men well fitted to do their part in the development of the industries of the country."—*Journ. Chem. Soc.* 1931, pp. 3374 and 3379.

Lord Melchett's remarks apply with considerable force to the industries of Europe and America most of which have been in existence for the last two centuries or more and they must secure the talents of the best trained researchers. This is especially indispensable to the modern dye-industries based upon coal-tar products.

Modern chemical and metallurgical works or electrical firms have to face keen world competition and in order that they might exist it is necessary to enlist the services of the best scientific experts. It does not mean that the proprietors thereof (either as individuals or as share-holders in the case of Limited Companies) must be themselves scientists. All that is needed is that they should have culture, intelligence and foresight enough to realise that in these days no rule-of-thumb methods would do but that they should be always on the alert and utilise the most advanced and up-to-date knowledge. Andrew Carnegie, J. N. Tata, Lord Leverhulme and Swarup Chand Hukum Chand, to mention only a few names, have succeeded so well because they realised at the outset the importance of seeking the service of experts. But the expert, in these days, plays only a minor part *in the starting of industries*, I have already quoted Pierpont Morgan the great financier who says:

"I can hire any expert for 250 dollars and make 250 thousand dollars with the information he gives me, but he can't make the money himself and he can't hire me to do it for him".

The only successful electric steel-welding works located near Calcutta owes its existence to the pluck and resourcefulness of Sir Swarup Chand Hukum Chand who is innocent of all scientific knowledge. He is a big business magnate and he has secured the services of experts ; surely he did not wait to learn the principles of chemistry and electro-metallurgy before he could make up his mind to start the works.

I have visited the *Technische Hochschule* at Charlottenburg (Berlin) as also its counterparts at Zurich and Manchester and I should be the last person to minimise the importance of similar institutions. But I maintain that only the scientific principles underlying manufacturing processes can be learnt at such institutes: The actual manufacturing knowledge—how to produce things which can be placed in the World Market at competitive prices—can only be acquired in existing industries.

That practical knowledge acquired in workshops is sometimes more helpful to industries than knowledge acquired by students in Technological Institutes was recently illustrated by a case at the Bengal C. & P. Works. We had recently occasion to instal a sulphuric acid plant. Ordinarily the English patentee himself would have been asked to set up the plant and he would have naturally sent an expert for the purpose for which a heavy fee plus travelling and hotel expenses would have to be paid. Some fifteen years ago, we took a youngman who had only qualified in junior course of the Engineering Department of the National Council of Education. Being in close touch with chemical engineering he has grown in knowledge and experience with the gradual expansion and growth of our firm. He has acquired skill in his special line. We had no hesitation in entrusting him with the task of setting

up the acid plant. He followed closely and step by step the plans and specifications submitted by the patentee. The ingenuity and mastery over details which he brought to bear upon his task have extorted our unstinted admiration. He has even detected some flaws in the plan, which were admitted by the patentee. The plant which is perhaps the biggest of its kind in India is working smoothly. Now, in a technological institute a miniature plant (as is done in junior course class experiments) is shown illustrating the manufacture of sulphuric acid. Miniature models of *Taj Mahal* are often shown in exhibitions. One can no more erect a Taj from the toy model than he can the acid plant from the miniature models.

V. College Graduates in Business.

Is there no room then for the college educated youngman in business or industry? There is ; but only in exceptional cases ; provided he shakes himself free from queer notions imbibed during his scholastic career, and is prepared to begin *de novo* at the bottom as a novice and slowly works his way up. Under such conditions he proves to be of superior mettle. Says Carnegie :

"The graduates of our colleges and universities in former years graduated while yet in their teens. We have changed this, and graduates are older, as a rule, when they enter upon life's struggle, but they are taught much more. Unless the young university-man employs his time to the very best advantage in acquiring knowledge, the pursuit of which he is to make the chief business of his life, he will enter business at a disadvantage with younger men who enter in their teens, although lacking in university education. This goes without saying.

"There is another great disadvantage which the older man (as graduate) has to overcome in most successful business establishments. There will be found in operation there a strict civil-service system and promotion without favour. It is,

therefore, most difficult to find admission to the service in any but the lowest grades. One has to begin at the foot, and this is better for all parties concerned, especially the young graduates.—*The Empire of Business*: pp. 206-208.

"* * The exceptional graduate should excel the exceptional non-graduate. He has more education, and education will always tell, the other qualities being equal. Take two men of equal natural ability, energy, and the same ambition and characteristics, and the man, who has received the best, widest, most suitable education, has the advantage over the other, undoubtedly." *Ibid.*

This is well exemplified in the late Lord Melchett (Alfred Mond) who was one of the most successful of business magnates. He was educated at two British Universities and was a Bar-at-Law as well. But then he was born heir so to speak to one of the biggest alkali works founded by his father—the famous Ludwig Mond, who graduated at the University of Heidelberg and studied Chemistry under Kolbe and Bunsen. He entered into partnership with his friend John T. Brunner (head of Messrs. Hutchinsons' Chemical Works). Thus we read:

"The eight years between 1873 and 1881 were years of tremendous work and stress. Only through the genius, determination, and unremitting labour of the two partners was the enterprise brought to a successful issue.

"Thus for the first sixteen years of his life—the important formative years—the boy Alfred Mond saw from day to day the development of a great work and lived in an atmosphere of scientific labour and mighty deeds." *Journ. Chem. Soc.*, 1931.

I have just mentioned the limitations even in the European and American world. In our country as shown above we have to fight against tremendous odds. The average European or American graduate has the dash, the pluck, the 'go' or the spirit of adventure and the determination to conquer, to which his Indian counterpart is a stranger. In our Chemical Works

there are as many as thirty graduates in science; they do well enough as far as the appointed routine work is concerned; but they seldom develop any initiative on their own account.

In Bengal, we are to-day faced with a serious problem. The Bengali, who has to depend on the non-Bengali for the sale of the very produce of his land e.g. jute, grain, oil-seeds, arecanuts etc., can scarcely be expected to run successful industries. For, the former not only requires scientific and technical knowledge but also business capacity of a high order which unfortunately, he has yet to develop. He is unable to find large capital for initial outlay. He has not yet been able to start a bank worth the name which will finance his enterprise. The Universities and Technical Schools of Bengal are producing their graduates or diploma-holders in any number. The teaching profession is already overcrowded and we are now confronted with the very serious problem of finding suitable careers and outlets for these young men.[6]

The lesson is obvious. A university-man sometimes does very well when appointed to a ready-made or going concern. But it is the self-made man with business instincts, struggling hard against adverse circumstances, who, as a rule, founds the business ; who is known as the "Entrepreneuer".

I began this chapter with quotations at its heading from a keen observer on modern China. I conclude also with the sagacious remarks of another equally discriminating writer :—

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6 *Cf.* My address in opening the Classified Trades Exhibition at Bombay, 27th August, 1930 :—"Some sixteen years ago the veteran editor of 'Modern Review' styled your humble lecturer as Doctor of Doctors, by which he of course meant the father of Doctors of Science. To-day I find to my infinite bewilderment that year in and year out, Doctors of Science are being manufactured not only in my own laboratory, but that my old pupils, holding chairs at the Universities of Calcutta, Dacca, Allahabad, Lahore and other places— are producing any number of Doctors of Science. In fact, if a catalogue were to be compiled of my chemical children and grandchildren as Doctors of Science, the number would be found to be simply appalling. And yet we are as helpless as newborn babes, as far as chemical industries are concerned".

"To be sure, China is still a predominantly agricultural country, but many trading and manufacturing centres have sprung up during the last thirty years and whether they have developed Chinese businessmen and Chinese workers have alike shown themselves capable of using the technique of modern industry.

"The Chinese can use western technique. They can organise and build—factories, railroads, trade unions and army divisions." Scott Nearing: *Whither China?* p. 182.

It will be seen that both the authors are unanimous in the considered opinion that what is requisite in the starting of industries is the combination of businessmen and workers who can utilise western technique by engaging the services, of course, of experts but not graduates in science or of Technological Institutes.

CHAPTER XX.

INDUSTRIAL ENTERPRISES.

A detailed account of the origin of the Bengal Chemical and Pharmaceutical Works has been given elsewhere (*vide* Ch. VII.). It now remains to follow it up with a brief history of some other industrial concerns with which I have been intimately connected and incidentally to lay stress upon the initial difficulties to contend with.

I. THE CALCUTTA POTTERY WORKS—ITS HISTORY.

The origin and history of the Calcutta Pottery Works is of peculiar interest. In the year 1901 a gentleman discovered China clay, in a place named Manglehat near Rajmahal in the Santal Parganas, suitable for manufacturing porcelain and earthenware articles. Accordingly the Maharaja of Kassimbazar, Messrs. Baikuntanath Sen and Hemendranath Sen formed themselves into a private company and, when the latter came to Calcutta and joined the High Court, the Calcutta Pottery Works was started in Calcutta as a very humble enterprise with a few huts raised on the side of a tank, where a few potters were engaged to work on the wheels.

As no pottery expert was available at that time, Mr. Sen engaged an old gentleman, Mr. Narainchandra Banerjee, who knew something about the pottery business, and who took upon himself the charge of running the new experiment. He constructed furnace after furnace and besides gallipots and bowls, he began manufacturing toys and dolls with the help of some modellers from Krishnagore. But as the said gentleman had no scientific knowledge, his experiments proved failures, and no marketable articles could be produced. A sum of Rs. 27,000/- was spent during this experimental period.

Since the chief raw material was China clay the proprietors now directed their attention to the necessary arrangements for

producing large quantities of China clay from the hills and with that object an engine, a boiler, a disintegrator and other machinery were fitted up at Manglehat. There were enormous difficulties in carrying the 20 H. P. boiler up the hill. The engine and boiler were finally set up, and after the installation of the machinery a complete arrangement was made for manufacturing a large quantity of China clay. In the beginning of 1906 Mr. S. Deb, who had been deputed to Japan, returned after receiving training in pottery manufacture in the Higher Polytechnic at Tokyo and at Kyoto, and was placed in charge of the business.

He worked for sometime but, as it was found that there was a greater prospect for the business and that the place was too small, it was decided by the proprietors that the business should be extended and porcelain articles should be manufactured on a large scale. With this end in view a lease was obtained of about three acres of land at 45 Tangra Road near Beliaghata Railway Station. On this site the necessary machinery was set up, sheds were constructed and kilns were erected and the work of manufacture under the improved scientific system commenced in 1907. But for want of trained labour the progress was not satisfactory. Mr. Deb was sent to Japan to bring with him two Japanese workmen to train the people here. These Japanese workmen arrived here in September, 1909, and worked for one year with satisfaction, after which they were sent back to Japan. The expenses of these workmen, including wages and travelling charges, cost the proprietors about Rs. 10,000. Business began to thrive gradually and the proprietors continued to invest larger sums of money.

But, owing to the influx of cheap Japanese and German articles in the market, it was found impossible to cope with the imported articles with any prospect of profit. So it was thought desirable in 1913 to send Mr. Deb to Germany to study the latest methods of manufacture of porcelain and earthenware, to purchase improved machinery and to inspect and visit

different Pottery Works in England and on the Continent. Mr. Deb worked in several Laboratories and Factories, testing the suitability of manufacturing porcelain and earthenware articles from the indigenous raw materials which he had taken with him. He came back to India after having ordered the requisite machinery and all the materials for a new and improved kiln. These were taken delivery of just before the outbreak of the Great War, and a new kiln according to German Dresden Models was constructed. All necessary machinery was installed, the land on which the Factory was situated was purchased by the proprietors, and work commenced in full swing.

A summary of productions and sales during the years 1906 to 1916 shows that production came up to Rs. 2,02,952/- while the sale was only Rs. 1,92,827/-, the amount spent by the proprietors up to that time being about Rs. 300,000/-. In the Budget which was prepared for 1916-1917, Mr. Deb, the Manager, proposed further extension and asked the proprietors for a further investment of capital for necessary expenditure and as working capital a sum of Rs. 2,50,000/-. The proprietors, however, grew despondent and after having spent such a large sum of money without any return for such a long period they did not think it advisable to spend further money and they thought of converting the business into a limited liability company. With this end in view they negotiated with a European firm and the proposal met with a quick response. The terms and conditions were discussed for a considerable time with Mr. H. N. Sen and the firm, but for some reason or other the negotiations fell through.

Then, in February 1919, the business of the Calcutta Pottery Works was converted into a limited liability company under the name and style of the "Bengal Potteries, Ld.", with a capital of Rs. 10,00,000/-.

The new company proposed to install 3 more kilns of the Dresden type and they expressed a hope that the total working capacity of the combined kilns would be such as to produce manufactured articles to the total gross value of Rs. 4,20,000/-

annually and thus with a paid up capital of Rs. 800,000/- for the present there would be a net profit of Rs. 160,000/- per year which would enable them to declare a dividend of 20 per cent. per year.

Accordingly the company began to erect the new kilns, the slip house being extended and machinery added. But by the time all these improvements and additions were completed it was found that nothing was left for working capital. From 1920 to 1925 the company went through a terrible crisis. Managing Agents, whose activities in the industrial field of work attracted the admiration of the public, commenced dealing with the business in a style and grandeur which could be compared with some of the best European firms. Mr. Deb continued to be in sole charge of the business. He was not only in sole charge of the factory and manufacturing works, but was also entrusted with the duties of the Secretary so that the whole business was left solely in his hands. But, although he laboured hard, he could not succeed in giving it a profitable turn. The odds were against him.

Unfortunately for the company, the firm of Messrs. P. N. Dutta & Co., for various reasons, became financially embarrassed and it was thought desirable by the Directors that the Managing Agency should be taken away from them. Accordingly the Directors took upon themselves the responsibility of managing the business. Most of the original Directors having died or left the Board, new Directors were brought in.

The expenses were heavy and the monthly outturn was hardly sufficient to meet the necessary expenses, to say nothing of leaving any margin of profit. The Directors began to grow nervous as they found that it was not advisable to entrust the whole business in one hand. The Directors decided to hold an enquiry and a committee was formed to examine the whole working of the business thoroughly and after a most elaborate enquiry by the said committee a report, drawn up by the Chairman of the Committee, Mr. D. C. Banerjee, was placed

before the Directors, pointing out wherein lay the defects of the management and the errors in manufacturing.

The great difficulty in carrying on successfully an Indian manufacturing concern lies in this, that it must compete with indented articles in the market. No business can prosper on sentiment only and it is idle to expect that customers will purchase articles manufactured by Indians for any length of time simply because they are Swadeshi, at a price higher than that at which similar articles are sold in the market. So, an Indian manufacturer has to sell his articles at the market rate irrespective of his cost of production. If he is compelled to sell at the market rate he may have to carry on his business at a loss. He is placed in this dilemma as long as he is unable to manufacture articles at a minimum cost which will enable him to sell at a profit. The Indian manufacturer has to create a market for himself, suffering loss year after year, and this is a matter which the shareholders will have to bear in mind. No doubt the shareholders cannot be blamed if they find that their invested money is lying idle without any return for years; but they ought to take into consideration that India is now in its infancy as regards industrial movements and she cannot be expected to do at once what the foreign countries have achieved after centuries. This is the reason why a large number of Indian concerns, which had cropped up since the Great War, have collapsed and few are those yet struggling; still fewer are those that seem likely to survive that struggle. Extensive capital is being invested by foreign manufacturers and necessarily their cost of production is a minimum one. At present India is undergoing these trials and, unless the local manufacturers can bring their cost of production to such a minimum scale as will leave them a sufficient margin of profit, they cannot be expected to survive and compete with foreign manufacturers.

The account given above is taken verbatim and is condensed from Mr. Sen's own report. A pathetic interest

attaches to it as the writer of it is no longer in the land of the living. At my special request Sen drew it up a few months before his death.

It will thus be seen that the late Maharaja of Kassimbazar and Hemendranath Sen have nursed this infant industry for nearly 30 years. The Maharaja and Messrs. B. N. Sen and H. N. Sen represent more than 50 per cent of the share capital of the concern.

I am sometimes pestered with inquiries from the shareholders of this Company, and some others with which I happen to be connected, for failure in paying dividends.[1] But the account given above will convince the reader of the immense and almost insuperable difficulties in the path of the pioneers. The best and the most convincing reply can, however, be given by what the *National* Government of Japan has done to start and foster infant industries.

"It is the State, also, which has been mainly responsible for the introduction of new industries into Japan * * * where it has not actually provided the capital for new enterprise, it has frequently helped by granting subsidies or protection

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1 A big shareholder, however, (to the extent of Rs. 80,000)—an Englishman—thus writes to a member of the Board : "L.—has been kind enough to write and tell me of some of the troubles you all have had in connection with the firm and with what determination you are facing them. We, shareholders, at a distance, should be very grateful for what you are doing and I for one anyhow wish to thank you very sincerely for your efforts and also to say that my confidence in your ultimate success is absolutely unshaken. * * * * Fortunate we are that we have *you*. He says of you—'There is no man for whose intellect and purpose I have a greater admiration'. Very well—it will certainly be an extraordinary thing if you can't make good"

The English shareholder, referred to above, since his retirement from Government service, has been giving his undivided attention to the successful working of the business. Though a layman he has mastered the details and to a certain extent even the *technique* of the industry. He has been working for the last year and a half regularly from 10 A.M. to 6 P.M. without any remuneration whatever. His one *idea* is to make the Pottery Works a success. Such selfless devotion on the part of a shareholder is indeed rare and an example unto others.

to the manufacturer, besides providing him with loans from the official banks".—Allen: *Modern Japan and its Problems*, p. 103.

It must not be forgotten, however, that the Japanese industrial and commercial enterprises were, roughly speaking, undertaken by the State from 1870 to 1883. During this period the Government owned the main factories in Japan, and worked them, owing to the lack of experience of the people in regard to modern methods of business management. In order to educate the people in technical and other knowledge the Government had to establish and supervise these factories. For instance, the Government owned railways, coal and other mines, shipbuilding yards, textile factories, including silk, cotton, wool-spinning and weaving mills, and also factories for the manufacture of glass and paper.

"During the thirteen years following the Meiji Restoration that is, the first half of the period (1868—1893), the industries of Japan may be said to have been in the age of industrial infancy under State management. About 1883 the industries under State management were gradually handed over to private enterprise, which was at the time subsidized by the State for the purpose of encouraging staple industries; thus the policy of State management was replaced by private enterprise. * * * * * The period of self-controlled industries ends with the Japanese-Chinese War, 1894, which was followed by preparations for future industrial development.—Uyehara. *Industry and trade of Japan*, pp. 10-11.

"Almost all Governments have attempted to stimulate industrial development by the granting of subsidies, by the imposition of protective tariffs, or by loans from official banking institutions. Everywhere free competition has been gradually giving place to governmental regulation, to co-operation among producers, and to organized control. Even Great Britain, in spite of her traditional bias towards *laissez-faire*, has been compelled by the pressure of circumstances to make some advance along these new paths".—Allen: *op. cit.*, p. 105;

also: "Ito [Prince] bent himself to forced cultivation of industry by Government patronage."

The death of Maharaja Manindra Chandra Nundy close upon that of Hemendranath Sen has been another severe blow to the concern. That it is at all able to keep its head erect in spite of the adverse circumstances and heavy losses is due mainly to the heroic endeavours and sacrifices of Mr. Durga Charan Bannerji. Since he joined the Directorate seven years ago, he has been ungrudgingly giving his time to rescuing it. Mr. Bannerji is a partner of a successful firm of attorneys and if he likes he can coin his minutes into rupees and hours into gold mohurs, and yet almost every day after arduous professional work he devotes an hour or sometimes a couple of hours to the affairs of the firm. On holidays he has been known to go thoroughly into the accounts and all the details of the business. Though a first class M.A. in History, he has read the available literature on ceramics and has grasped the technique of the subject in frequent consultations with the factory experts. I have often seen him in harness for 12 hours on end with but short intervals for meals. He has not, on occasions, even hesitated to stake his personal credit for the purpose of raising loans to tide over financial crises.

The one idea uppermost in his mind and which has all along sustained him is that he has been serving a Swadeshi enterprise. Unstintedly does he give his best to the cause which is near and dear to his heart. I feel considerable delicacy in having to write this, for I know Mr. Bannerji is very shy of the public gaze and is a silent and unobtrusive toiler in the field. I am not at liberty to divulge the secrets of his private life but this much I may say that he has on a rough calculation staked and lost some 4 or 5 lakhs on behalf of Swadeshi concerns and he is not at all sorry for it. I must not omit this opportunity of paying my meed of tribute to another friend, a colleague of mine in the Directorate of another Company. Though on the border-land of three-scores and ten and by no means a well-to-do man and even encumbered with family

obligations, he has nearly beggared himself by advancing his hard-earned savings to the extent of 40 thousand rupees to keep his Company going, knowing well that the money is not likely to return to his pocket.

II. Bengal Enamel Works Ltd.

The Bengal Enamel Works Ltd. was started in 1921 with a small Factory at Narkeldanga. The beginning was attended with considerable difficulties owing to the lack of proper experience and technical knowledge of the industry. The Bengali gentleman who was originally asked to take charge of the Works, could not see his way to accept the condition insisted on by the promoters of the concern, that he should train up under him a few Indian Science Graduates with a view to future expansion of the business. He left the concern at a critical moment and just at that time the prospects of carrying the project through seemed gloomy.

But one of the Directors, Mr. Dwijendra Nath Bhattacharyya, Professor of English Literature at a local college, threw himself into the business heart and soul and, undaunted by the difficulties that stood in his way, went on making experiment after experiment with the help of technical books on the subject ordered out from England, Germany and America. Thanks to his indefatigable labour, it was found possible to commence business in November, 1921, with a very small furnace suitable for manufacturing house numbers and similar other small enamelled articles.

Meanwhile, his brother, Devendra Nath Bhattacharyya, M. Sc. (an ex-pupil of mine) who was in Japan at the time, devoted himself to the study of the Enamel Industry there and began to contribute material assistance to the experiments conducted by his brother in India, by valuable hints and suggestions based on his personal observations in some of the best enamel factories of Japan.

Subsequently, Mr. Devendra Nath Bhattacharyya purchased in Japan machinery and complete equipment for an up-to-date

enamel factory and brought them to Calcutta in 1923. A spacious plot of land was purchased at Palta (15½ miles from Calcutta) and a suitable factory established on modern lines under the direct supervision of Devendra Nath Bhattacharyya. The devotion and energy of the Bhattacharyya brothers, and specially of Devendra Nath, who almost shattered his health under the great strain, deserve special mention.

The magnitude of the task can only be realised by those who are connected with industries in Bengal. Col. Dunlop, the then Director of Army Contracts, Simla, who visited the Factory in 1927, expressed his surprise in no ambiguous language to see the progress made in 5 years' time with such a difficult and entirely new industry in India.

As a result of thousands of experiments with Indian raw materials, it became possible to make most of the enamel glazes locally and the Factory was able to produce articles of a quality comparing favourably with British goods.

Meanwhile, the number of trained workmen had increased slowly, but steadily, attended with a corresponding increase in the annual output. In place of the small furnace the factory now owns four big Muffle Furnaces, besides a battery of smelting furnaces to prepare enamel glazes.

The difficulty experienced in inducing Bengali youths to adopt and stick to the arduous task of enamellers was considerable. The high temperature in which one has to work in the Furnace room proved a deterrent to the middle-class Bengali lads and hundreds of them came and went away through inability to become fully inured to the conditions. Eventually men had to be recruited from among the hardy Mahommedans of Noakhali and the so-called lower class Hindus of Eastern Bengal, with a sprinkling of upper-class Hindu lads without any literary education. The educated Bengali youth has shown a great apathy towards undergoing hardship and manual labour of this nature, and efforts to train a few of our University men for this work have so far proved a failure. In every case the ceaseless refrain of the sad story is the same, namely, the

easy-going nature of the Bengali youth and his repugnance for hard labour. Attempts are still being made however to induce educated Bengali youths with sufficient stamina and tenacity to join the industry, as it is felt that on it depends, to a large measure, the future of the enamel Industry in the country.

It may be added here that even in industrial England enamelled iron ware enjoys a protective duty of 25 per cent., whereas this infant industry in India has to stand keen competition against formidable Japanese and German manufactures without any kind of State or Bank assistance whatsoever.[2]

Of course, big concerns like Tata Iron Works or the Titagarh Paper Mills etc., can afford to raise a hue and cry, make their voices heard and get heavy protective duties imposed, but small industrial undertakings must suffer in silence and be wiped out of existence. This is indeed a striking evidence of the solicitude felt by our paternal Government for the industrial development of the country it professes to hold in trust!

III. Mercantile Marine in Bengal—Past and Present.

The Bengali is now believed to have an instinctive aversion to mercantile enterprises, and to sea-voyages. But historical records are available to prove that he bore a conspicuous part in the external and internal trade of the land of his birth.

"The tradition of Bengalis being once famous for their maritime enterprises and commercial activities has also been,

2 Cf. British Official Wireless.

Rugby, June 9, 1929.

"The House of Commons yesterday passed a resolution imposing a safe-guarding duty of 25 per cent. for five years on enamelled ironware."

"Sir Philip Cunliffe-Lister, President of the Board of Trade, recalled that the original duty had been imposed in 1921 by Mr. Lloyd George's Government. When it lapsed in 1924 foreign imports had increased, but not to such an extent as to persuade the Safe-guarding Committee in 1926 to advise the re-imposition of the duty. The present claim before the identical committee had now succeeded, because new evidence, including statistics of the census of production, had been adduced.

as may be naturally expected, well preserved in their literature. No folk-lore is so popular in Bengal as those volumes of poetry evoked by devotion to the goddesses of Chandi and Manasa ; and in them are contained accounts of the maritime adventures of merchants like Dhanapati, Sreemanta and Chandsadagara."[3]

Thus as early as A. D. 399-414, the Chinese pilgrim Fa-hian found Tamralipta, as the great harbour of the Bengal Sea-board and he sailed from this port on his return voyage. As Mr. Okakura also says that down to the days of the Mahommedan conquest the intrepid mariners of the Bengal coast were founding their colonies in Ceylon, Java and Sumatra and binding Cathay (China) and India fast in mutual intercourse. During the period under the patronage of the twelve Bhowmicks (Semi-independent chiefs of Bengal) and of the Moghol Viceroy at Dacca, the chief centres of Hindu naval activity in Bengal were Sripur, Bakla or Chandradwipa, in the south-east of the modern district Backergunge and Chandikan, which is identified with the Saugor Island. Kedar Ray, the lord of Sripur, was a naval genius in his day, and defeated completely the fleet of the King of Arakan containing 150 vessels of war, when the latter attempted to conquer Sandipa. Bakla grew to another centre of activity under the leadership of Ramchandra Ray and his son Kirtinarayana, who ousted the Firinghees from their Settlements near the mouths of the Meghna. But by far the most important seat of Hindu maritime power was that

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showing that six out of 18 firms in this country had been compelled to close down."

It is true that enamel ware is subject to an import duty of 15% ; but this protection is almost counterbalanced by the fact that all the imported chemicals used by this industry are also subject to the above duty, and Tata's Steel sheets, which are the most important raw materials used, naturally maintain the same level of price in the market as the duty-paid imported steel sheets.

3 Vide—Radhakumud Mukherjea—*Indian Shipping*, pp. 157-58.

established at Chandikan by Pratapaditya, the famous ruler of Jessore, and his son Udayaditya.[4]

The Mahommedan rulers had also strong navies for conducting warfare. Thus, Mirjumla embarked on his conquest of Assam with a large Nouwara (Flotilla). In 1664 Shaistha Khan became the Viceroy of Bengal with his Capital at Dacca. In order to suppress the Mughs, he built up a large navy, consisting of 300 magnificent vessels of war which were constructed at Hughli, Balasore, Murang, Chilmari, Jessore and Kalibari.

The East India Company also helped to build up the Bengal marine in its early days, thus continuing the work of the Moghol Viceroys of Dacca. "From 1781 to 1800, 385 ships with a total tonnage of 17,020 were built on the Hughli. From 1801 to 1821, there were built on the Hughli 237 ships of 105,693 tons." "Lord Wellesley, the Governor-General of India, was able in 1800 to testify as follows to the growth and possibilities of Calcutta as a shipping centre."

"The port of Calcutta contains about 10,000 tons of shipping, built in India, of a description calculated for the conveyance of the cargoes. From the quantity of private tonnage now at command in the port of Calcutta, from the state of perfection which the art of ship-building has already attained in Bengal (promising a still more rapid progress) it is certain that this port will always be able to furnish tonnage to whatever extent may be required for conveying to the port of London the trade of the private British merchants in Bengal."

Bombay was also not behind Bengal in this respect. If anything she was in advance of Bengal. The Bombay Government Dockyard, under the able guidance of Parsi ship-builders, was the best of its kind known at the time. Thus a visitor describing Bombay in 1775 said, "Here is a dockyard, large and well contrived with all kinds of naval stores deposited in proper warehouses. It boasts of a dry dock as is perhaps not to be

4 For an account of the great naval engagement between Udayaditya and the Mogul General—see *Hist. Jessore-Khulna.*

seen in any part of Europe either in size or convenient situation."[5]

But this rich promise of progress foreshadowed by Wellesley never materialised. "The arrival in the port of London of Indian produce in Indian built ships, created a sensation among the monopolists, which would not have been exceeded if a hostile fleet had appeared on the Thames. The ship-builders of the Port of London took the lead in raising the cry of alarm ; they declared that their business was on the point of ruin and that the families of all the shipwrights in England were certain to be reduced to starvation" (Taylor : *History of India*). This agitation effectively put a stop to Lord Wellesley's just and humane policy of encouraging Indian ship-building by obtaining admission of Indian ships and their cargoes into the ports of England on terms approaching, in some degree, to reciprocity. The Court of Directors and Proprietors recorded severe resolutions of censure on their Governor-General for this humane action.

In our own times, we find that whenever an attempt has

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5 The under-mentioned Parsis held successively the appointment of head builders in the Bombay Government Dockyard from 1736 up to 1837 :—

From 1736 to 1774 * * * Lowjee; from 1774 to 1783 * * * Maneekjee and Bomenjee; from 1783 to 1805 * * * Framjee and Jamsetjee; from 1805 to 1811 * * * Jamsetjee and Rattonjee; from 1811 to 1821 * * Jamsetjee and Nowrojee; from 1821 to 1837 * * * Nowrojee and Cursetjee.

Recently, Dr. Paranjpye on the occasion of the launching of the Scindia Navigation Company's steamer "Jalaveera" said : "on an occasion like this, it is impossible not to recall past times when India was famous for her maritime industry. Forgotten as those days are it is hardly a hundred years since many places in India could build ships even better than in the shipyards in England. Thus we are told in 1802 the Admiralty ordered 'Men-of-War' for the Government's Navy to be built in Bombay. They intended to send out European builders but the merits of Jamsedji Wadia, a local shipbuilder, being well-known, their Lordships ordered him to continue as master-builder. The famous house of Wadias had a very interesting history in ship-building for a hundred years. It was only about the middle of the 19th century that Bombay ceased to be the centre of a flourishing ship-building industry."

been made to start a Swadeshi Steamer Line whether in Bengal or in Bombay, the powerful British Companies, enjoying a monopoly of the traffic, have tried their best to strangle the national line at its birth. I cannot better describe this attitude than by quoting the following extracts from the evidence before the Indian Mercantile Marine Committee given by Mr. Jogendranath Ray, representing the East Bengal River Steamer Service, Ltd., of Calcutta. "It was neither want of capital nor lack of efficient management that retarded the growth of his Company, but the undue combination of European interests with the avowed object of crushing this Indian Enterprise. When this Company was first started as a private concern, most of the Jute Mills used to accept goods carried on the small vessels of this Company and to advance money on the bills of lading of goods shipped by the Company's vessels. But after a few years, when the European Companies found that this Indian Company was increasing its flats and doing very good business, and other similar Companies were being started by Indians, they made an agreement with the mills restraining them from accepting jute carried on vessels owned and managed by Indians".

The experience of the Scindia Steam Navigation Co., which has a large fleet engaged in Coastal traffic, has been much worse. The speech delivered by Mr. Walchand Hirachand, Chairman of this Company on the 25th November, 1929 is illuminating. "The foreign companies have employed tonnage in the routes in which the vessels of this company ply, much in excess of the requirement of the trade. This coupled with unreasonable and un-economic freights tells heavily upon the Indian Companies struggling for existence". The attitude of the Government of India under the Crown has been deliberately hostile to Indian shipping, thus Mr. Hirachand says: "Not only did the commercial ship-building yards disappear one by one, but active steps were taken by Government to do all it could to prevent building of ships in India, even for its own requirements, and, as a result, the Bombay Dock-

yard was closed down after rendering immense service both to England and India during the many years that it lasted. With its dismantling was completed the process of de-vitalising the shipping industries of India undertaken ever since the appearance in London of Indian-built vessels which evoked the jealousy of the ship-builders of England.

"Thus in the course of less than fifty years the national tradition of Indian ship-building and maritime activities extending over thousands of years was blotted out so that hardly anything now remains to show the immense sway which at one time the Indian shipping industries exercised over the commercial ocean routes of the world. Throughout the awful pages of Indian economic history of the last 70 years, there is hardly a more typical example of the British insistence upon Indian economic ruin to benefit British interest than their Government's systematic destruction of Indian shipping enterprise and their helpful support to the consolidation of British influence in the coastal waters of India. The exclusion of British Shipping Companies from the income tax and consideration of measures to enable them to monopolise the coasting trade of India, coupled with their hostility to Indian shipping in general, are enough to stamp the British economic policy with an open desire to harm Indian interests and to pursue a definite policy of strengthening British interests".

The Indian Mercantile Marine Committee appointed by Government, under pressure of the resolution passed by the Legislative Assembly, recommended "The eventual reservation of the Indian coasting trade for ships, the ownership and controlling interest in which are predominantly Indian." But the bureaucracy, who are the official collaborators with British commercial exploiters, have been doing their best to thwart this recommendation, and the fate of Mr. Haji's coastal traffic bill still hangs in the balance.

Contrast this tragic picture with what has been done by the national Government of Japan! In an incredibly short time, that country has not only built up a mercantile marine

but has come to the forefront in naval supremacy. The key to this pre-eminent success lies in the initiative of the State and its never-failing help in the shape of subsidy and banking facilities. When Commodore Perry appeared before Japan in 1855 she was taken aback and was not at all prepared for the new peril with which she was threatened. "For more than 200 years, the policy of national seclusion, enforced by the *shoguns*, stifled all maritime enterprise". At the commencement of the Renaissance, however, the Elder Statesmen realised the necessity of building an up-to-date mercantile marine and also a navy, and they strained every nerve to that end.

Thus Allen in *Modern Japan and its Problems* writes:— "By that time (*i.e.* 1872) the technical and commercial institutions and the present system of technological education had been brought into existence by the Government; a beginning had been made of a mercantile marine and, encouraged and supported by the state, there had appeared those great trading companies which to-day are such significant figures in the country's foreign trade. By 1894, the chief manufacturing industries introduced officially into Japan had been the textile and ship-building industries".

Later on the policies of protective tariff and subsidies were adopted to encourage private initiatives, and then successful industrial and manufacturing concerns started by the state were handed over to private management. "Although the Government relaxed its control over certain industries, it did not leave them to fight out their destinies without official assistance. Having secured tariff autonomy in 1899, Japan began to build up tariff walls round those industries which were considered of major importance, while the policy of subsidizing her shipping lines and ship-building yards came into effect in 1896 and, though revised in 1910, has remained in force ever since". And during the late war "the world shortage of shipping led to an expansion of Japan's mercantile marine so that from being a country whose foreign trade, some twenty years before, had been carried largely in foreign ships, she came herself to play

an active part in the commerce of all the Pacific countries". Only some fifty years ago small junks and sailing vessels were the only productions of Japanese shipyards; there has been amazing progress since then, and to-day we find that first class ocean boats and even dread-naughts and battle cruisers are being built by the Japanese themselves in their shipyards.[6] Although Japan labours under a serious natural handicap, in that her iron-ore and coal are of inferior grade, she imports 'pig' iron from America and India (Tata's) and from Indian Iron and Steel Company, Asansol, and makes her own steel for her ships. In this respect, although India is far more favourably situated, her misfortune is that her own interests clash with those of her foreign masters and hence they must be sacrificed.

Let us now see what steps America has been taking to make up for lost time, though compared to Japan she is one of the most progressive of modern nations. The following account from the pen of Sir Archibald Hurd will prove highly interesting:

"Though the American Congress has not yet approved the scheme for building the ten new cruisers for which the Navy Department at Washington has asked, it has passed a measure which is intended to restore American shipping to the position which it once held on the seas. The principal provisions of the new act are as follows":—

"It provides a construction fund of $250,000,000 so that

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6 Uyehara: *Industry and Trade of Japan*, p. 224. The following extracts will throw further light on this subject:—

"Few private concerns were established, and the work actually carried on by the Government upto 1880. During this period the number of home-built vessels gradually increased, but the average tonnage of steam vessels in 1880 hardly exceeded 80 tons. * * * * The Government handed over the management of the Nagasaki Shipyard to the Mitsubishi Co., in 1884, and the Kobe Shipyard to the Kawasaki Co. in 1885, both of which had been under Government control since their establishment. At the same time, the other two Government Shipyards, *viz.*, Urga and Ishikawa, changed hands, and ship-building in Japan, which had been entirely under State management before 1880, was undertaken by private enterprise from that year."—*Ibid*, pp. 224-26.

the Shipping Board may make loans to private shipowners up to three fourths of the cost of a vessel at interest rate apportioned in accordance with lowest rate of yield of any Government obligation (except postal savings stamps) outstanding at the time the loan is made. The loan period will be 20 years, including loans for 75 per cent. of the cost of reconditioning, remodelling or equipping vessels already built"

"Government officials are required to use American vessels when on Government business in preference to foreign ships".

It is obvious that American ship-builders will profit by the new law, because owners will not lose the opportunity of building cheap ships since they can now obtain money at something less than the ordinary rates which rule in the United States. It has been stated that within the next ten years as much as $5000,000,000 will be devoted to the expansion of the American Merchant fleet.

In this connection it is interesting to hear what Mr. V. J. Patel on the occasion of launching a new steamer of the Scindia Steam Navigation Company has to say:

"There was, as you are aware, a time when first-rate vessels built, owned, manned and managed by Indians used to carry the rich products of India to distant lands. A combination of circumstances, however, too well-known to need mention at this juncture, killed that industry outright, and subsequently made it extremely difficult for Indians to revive their past glory of a mercantile marine. It is again interesting to note that several Indian Shipping Companies were started during the last fifty years in India: but they were all wiped out of existence, about which the less said the better"

Mr. Patel proceeded to trace the history of the Scindia Navigation Company, and the severe rate-war launched against it. "The Company undertook a programme of constructing six modern cargo steamers; but that programme had to be curtailed. The Trade Facilities Committee rejected their application for a guarantee to enable the company to place orders for building steamers. It must indeed be a very painful

thought for those who wished to see a better understanding established between England and India that, although the Trade Facilities Committee could find out of their £21 millions more than 2¾ millions for assisting foreign shipping companies, it could not spare even less than one fourth of a million for a shipping company of that part of the Empire which stood so firmly, and responded so generously, to enable it to win the Great War."

* * * * *

"Whilst the Government of almost all the maritime countries have helped and are helping their nationals to build up their own mercantile marines, are not Indians entitled to expect their Government to help them in this great industry? No wonder then that there is a keen feeling of disappointment when they find even the most modest recommendations made by the Mercantile Marine Committee, appointed by the Government of India themselves, to keep open the coasting trade of India only to the vessels owned and managed by Indians, just as the coasting trade of most of the maritime countries is reserved to their own nationals, have not yet been carried out. I shall say nothing here of the large overseas trade of India in which Indian shipping hardly participates".

"The annual freight bill, which India meets, comes to 35 or 40 million pounds, a very substantial portion of which is claimed by non-Indian shipping companies. It is therefore a most legitimate and natural desire on the part of Indians to retain as much as possible of this great freight bill in their own country and thus help to lessen, to however small an extent, the poverty of their economic life".

The following extract from *The Mussalman* (dated October 21, 1928) will throw further light on a similar though much smaller undertaking in Bengal:

"It will be remembered that when Mr. S. N. Haji's Coastal Reservation Bill was being discussed in the Legislative Assembly, the Bengal Mahomedan Association of Rangoon wired its support to the Bill and, while emphasizing the need

for such a measure, quoted an instance of how the foreign shipping companies had started a rate-war against the newly started indigenous Company, namely, the Bengal-Burma Steam Navigation Co. Ltd., the ships of which have been plying between Chittagong and Rangoon. How unfair foreign competition ultimately led to the failure of the Bengal Steam Navigation Co. Ltd., which was started in the heyday of the Swadeshi movement of 1905 and 1906, is now a matter of common knowledge. The reservation of Indian coastal traffic for Indian owned ships has now become an indispensable necessity. Our readers are already aware that the foreign companies that have entered into a competition with the Bengal-Burma Steam Navigation Co. have gradually reduced the passenger fare between Chittagong and Rangoon from Rs. 14 to Rs. 4 and we understand that, in order to crush the infant indigenous concern, they threaten to do away with passenger fare altogether and make the passage free. Moreover, one of the foreign companies has just begun unfair competition with Moulvi Abdool Baree Chowdry, the chief promoter of the Bengal-Burma Steam Navigation Co., by running launches for inland services in rivers where launches owned by Mr. Chowdry have been carrying on the traffic so long. The underlying idea seems to be that if the man at the helm of the affairs of the Bengal-Burma Steam Navigation Co. may somehow or other be injured or ruined then the failure of the new Company may be brought about more or less easily."

I have myself been intimately connected with another inland Steam Navigation Company, which is, however, a very humble enterprise. The difficulties in our path have been of exactly similar nature. During the last twenty-two years of its existence the Company has suffered a loss to the extent of some 2 lakhs of rupees. The fare from one terminus to another was one rupee, but a powerful rival British Company began to ply its own steamers in competition with ours and reduced the fare to *one anna* and began running their boats alongside ours. But for the heroic and patriotic resolve of two

or three of the Directors who gladly undertook to bear the loss, the Company would have long ceased to exist.

It has been calculated that during the last 25 years, more than 20 Indian Shipping Companies, with a capital aggregating more than 10 crores, have tried to establish themselves on the Indian coast; and most, if not all of them, have failed owing to the rate-cutting policy adopted by the British concerns.

The British government, it will thus be seen, has done everything in its power to ruin the indigenous enterprises. The following few extracts will throw additional light on the subject:—

" . . . . But the greatest crime in the eyes of the Court, was Lord Wellesley's encouragement of private Indian trade, by means of which, in India-built ships, he was creating a noble mercantile navy, with corresponding increase of trade. The company, under their narrow views of monopoly, could not follow the magnificent plans of their Governor-General: and though he was supported by the ministry of the crown, the Court of Directors and Proprietors recorded severe resolutions of censure".—Meadows Taylor: *History of India.*

"The 'British India' developed the coasting trade, but the P. & O., being ocean mail contractors, had, on the opening of the Canal, to face the question of passing their steamers through it into European waters. I think I am correct in saying that the Directors in Leadenhall Street in these circumstances decided that their ships should henceforth be manned by Europeans, the lascars being confined to vessels trading from India to China, and in the local service between China and Japan. But the change proved disastrous, because the old Adam in the Britisher, his insubordination, and his tendency to drunkenness, asserted itself, and caused the new arrangements to collapse. * * * *

After a year's experience the experiment was given up".—*The Imperial & Asiatic Quarterly Review and Oriental & Colonial Record,* third series—vol. xxx. pp. 59 & 60, July—Oct. 1910.

INDIGENOUS SHIP-BUILDING.

A Peep into Measures taken by Government a Century Ago.

"To the Editor, *Forward*,[1]

Sir,

It is said that the boat building industry of our country has been destroyed due to the Foreign Government.

In this connection the following notification published in the "Calcutta Gazette" (Supplementary) of the 29th January 1789, may be interesting to the public. In this notification, it is not however, stated why the construction and repair of several kinds of boats were restricted.

"Fort William,

Revenue Department, Jan. 14, 1789.

"Notice is hereby given that all persons whosoever (the Magistrates of districts excepted) are prohibited from making use of, or constructing boats of the following denominations and dimensions after 1st March next.

"Luckhas 40 to 90 covids length 2½ to 4 covids breadth.

"Jelkias 30 to 70 covids length 3½ to 5 covids breadth.

Paunchways of Chandpore carrying more than 10 oars.

"That the Magistrates of Jessore, Dacca, Jalalpore, Mymensingh, Chittagong, the 24-Perganas, Higelee, Tumlook, Burdwan and Nuddea have been directed to seize and confiscate all boats of the above descriptions which may be found within the limits of their respective jurisdiction after period above mentioned.

"That any Zemindar allowing any boats of the foregoing descriptions to be built or repaired within the limits of his Zemindary (unless by a written order of the Magistrate of the district) shall forfeit to Government the village in which such boats shall be proved to have been so built or repaired.

"That any carpenter, blacksmith or other artificer engaging for or employed in the building or repairing of boats of the descriptions above specified (unless by the express permission of the Magistrate of the district) shall be committed to close

[1] Dated 26-9-28, Dak Edition.

imprisonment in the 'foujdary' jail for any period not above one month, or suffer corporal punishment not exceeding 20 strokes with a rattan.

"Published by order of the Governor-General-in-Council.

This Government notification speaks for itself.

Yours etc.,

A READER."

One can scarcely make up his mind to believe in such a blood-curdling *ukase ;* but facts are facts. In its refined and ruthless cruelty, it is perhaps unsurpassed in the annals of civilized governments.

The moral is clear. Until "the unholy alliance between the British administrators and British exploiters of India is broken up, until there is a change in the outlook of the Government of India, which would refuse to pursue a policy of active harm to India under dictation of British authorities, there is no hope for revival of Indian Mercantile Marine."—Abdul Baree Chowdry.

Besides the keen foreign competition and unsympathetic attitude of the alien rule another reason of the failure of our indigenous industries lies in the unhealthy competition amongst ourselves. It has been my unfortunate experience that whenever a new enterprise is started and even while it is struggling hard against many odds it has also to fight against the mushroom growth of many rival enterprises thoughtlessly started by our own countrymen. As a result rate-cutting becomes then a very prominent feature. For instance, our *Bangiya Steam Navigation Company* has suffered heavy losses from any number of motor-launches, and latterly one steamship plying side by side, although there are scores of other navigable rivers where they might have been profitably run. These latter have all ended disastrously causing at the same time heavy losses to our own line as well. It is the eternal curse that for the sad lack of initiative, "versatility and adaptability"—as Jack has it (*Vide* Chap. XXVI)—the Bengali cannot but follow the beaten track and thus *the Bengali has often unconsciously become the worst enemy of the Bengali.*

CHAPTER XXI.

Gospel of Charka—Lament of a Spinner.

During the last ten years I have worked hard for the propaganda of the Charka or the spinning wheel. Many have expressed surprise at what they regard as my new infatuation. The message of Mahatma Gandhi was driven home to me shortly after it was delivered. Being an industrialist on a humble scale, at first I scoffed at the very idea of this primitive, uncouth instrument competing with machinery. But mature deliberation soon convinced me of the efficacy of spinning in every rural household during the odd hours of unemployment. It is the only subsidiary occupation possible to the teeming millions of India, who live from hand to mouth and are often on the verge of starvation. The Charka has very aptly been called "the poor man's insurance against famine". As one who had to take an active part during the relief operations in connection with the Khulna famine and the North Bengal Flood, I could not fail to notice what an immense boon the Charka would have proved to the starving people if it had not been abandoned nearly a century before. In order to make this point clear the writings of a few eminent, far-seeing, noble-minded Englishmen, who had evidently anticipated Mahatma Gandhi, will be very helpful. The place of honour should be assigned to Colebrooke.

Three-quarters of a century before the birth of Mahatma Gandhi, a great Indian administrator, but greater still as an Orientalist, pleaded hard on behalf of the Charka. No single Englishman has done more for the cause of Sanskrit scholarship than Henry Thomas Colebrooke. Among other things it was he who was chiefly instrumental in first bringing to the notice of the European world the sublime beauties of the 'Vedanta'; it was he who again for the first time presented to the occidental scholar a masterly exposition of the six systems of Hindu

Philosophy. It was he again who in a series of admirable contributions established the priority of the Hindus in Arithmetic and Algebra. Colebrooke came out to India as a writer in the East India Company's service when merely a lad of some 18 summers. By his indomitable zeal and perseverance he acquired a mastery over Sanskrit rarely equalled since then. As a Civil Servant he travelled over the length and breadth of Bengal shortly after the permanent settlement of Lord Cornwallis and thus acquired firsthand acquaintance with the condition of the tillers of the soil and his booklet—*Husbandry of Bengal*—published about 1800 A.D., is replete with valuable information.

Speaking of Charka as the poor man's standby he observes:—"To a government enlightened as that is, by which British India is administered, it cannot be a trifling consideration to provide employment for the poorest classes. No public provision now exists in these provinces to relieve the wants of the poor and helpless. The only employment, in which widows and female orphans, incapacitated for field labour, by sickness or by their rank, can earn a subsistence, is by spinning and it is the only employment to which the females of a family can apply themselves to maintain the men, if these be disqualified for labour by infirmity or by any other cause. To all it is a resource, which, even though it may not be absolutely necessary for their subsistence, contributes at least to relieve the distresses of the poor. Their distresses are certainly greater than among the many decayed families which once enjoyed the comforts of life. These are numerous in India ; and, whether they be entitled to the particular consideration of Government or not, they have certainly a claim on its humanity.

"In this view, it appears essential to encourage an occupation which is the sole resource of the helpless poor. That such encouragement would supply commercial advantages to England, we think, can be also proved. For this purpose, it might be shown that cotton-yarn could be imported into England from Bengal cheaper than cotton-wool. Large quantities of linen and

woollen yarn are admitted, duty free, from Ireland. If it be not considered as injurious to the manufacturing interest of Great Britain to permit the importation of linen and woollen yarn, why discourage that of cotton-yarn from Bengal by a heavy duty, besides all the other impediments which we have so often occasion to notice?"

No commentary of mine is needed to improve upon the above. Let me now quote a few statistics from Buchanan Hamilton's work about the economic condition of Northern India from 1808-1815 :—

"Spinning and weaving were the great national industry of India next after agriculture. All the spinners were women, and Dr. Buchanan estimates their number in this district (*i.e.* Patna city and Behar District) at 330, 426. By far the greater part of these spin only a few hours in the afternoon, and upon the average estimate the whole value of the thread that each spins in a year is worth nearly 7 rupees, 2 annas, 8 pies, giving for the total annual value Rs. 23,67,277, and by a similar calculation the raw material at the retail price will amount to Rs. 1,286,272 leaving a profit of Rs. 1,081,005 for the spinners, or Rs. 3¾ (6*s*. 6*d*. in the year) for each. * * * As the demand therefore, for fine goods has for some years been constantly diminishing, women have suffered very much.

"Spinning and weaving were the great national industries of Shahabad ; 159,500 women are employed in spinning and produced thread to the value of Rs. 1,250,000 a year."[1]

Spinning and weaving naturally went hand in hand. Thus of Purnea district we read : "Weavers of cotton were numerous, and were mostly employed in producing coarse goods for country use. Three thousand five hundred looms employed in finer work produced Rs. 506,000 worth of goods, and brought a net profit

1 *Cf.* "All the thread is spun by women, who generally employ their leisure hours in the business".—Taylor : *Topography of Dacca*, p. 167.
"Indian Muslins were first introduced into England in 1666".—*op. cit.* p. 97. It is necessary to remember that 12½ lakhs in 1808 represents fully 50 lakhs to-day.

of Rs. 149,000 or about 86*s*. annually for each loom. Ten thousand looms employed on coarse goods produced cloths to the value of Rs. 1,089,500 and brought a net profit of Rs. 324,000 or about 65*s*. annually for each loom.

Romesh Dutt from whose *Economic History of India* some of the above extracts have been taken thus concludes his summary: "Large portions of the Indian population were engaged in various industries down to the first decade of the nineteenth century. Weaving was still the national industry of the people. Millions of women eked out the family income by their earnings from spinning".

H. H. Wilson in his continuation of Mill's *History of British India* (vol. i, p. 538, foot-note) with his glowing indignation narrates the destruction of Indian textile industry in these eloquent terms:—

"It is also a melancholy instance of the wrong done to India by the country on which she has become dependent. It

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"The Empress Noor Jehan greatly encouraged the manufactures of the country, and under her patronage the Dacca Muslins acquired great celebrity. * * * * Throughout succeeding times the Dacca Muslins have maintained their high reputation, and even in the present day, notwithstanding the great perfection which the art of weaving has attained in Britain, these fabrics are unrivalled, and in point of transparency, beauty and delicacy of texture are allowed to excel the most finished productions of the loom in any country in the world.—*op. cit.*, pp. 163-64.

"The spinning of thread afforded employment to all ranks and classes of inhabitants of the district in former times. This branch of industry began to be affected in 1824, when British yarn was first imported into the district, and since 1828 it has been in a rapidly declining state".—*op. cit.*, p. 170.

"The manufacture of thread, the occupation in former times of almost of every family in the district is now, owing to the comparative cheapness of English thread, almost entirely abandoned, and thus the arts of spinning and weaving, which for ages have afforded employment to a numerous and industrious population, have in course of 60 years, passed into other hands that supply the wants not only of foreign nations, but of the rivalled country itself".—*op. cit.*, pp. 365-66.

Cf. also Moreland who says in his *India at the Death of Akbar*:—

"Even if we conclude that Bengal wore sack cloth, the fact remains

was stated in evidence (in 1813) that the cotton and silk goods of India up to the period could be sold for a profit in British market at a price from 50 to 60 per cent lower than those fabricated in England. It consequently became necessary to protect the latter by duties of 70 and 80 per cent. on their value or by positive prohibition. Had this not been the case, had not such prohibitory duties and decrees existed, the mills of Paisley and Manchester would have been stopped in their outset, and could scarcely have been again in motion, even by the power of steam. They were created by the sacrifice of the Indian manufacture. *Had India been independent she would have retaliated, would have imposed prohibitive duties upon British goods and would thus have prescribed her own productive industry from annihilation. This act of self-defence was not permitted her ; she was at the mercy of the stranger. British goods were forced upon her without paying any duty, and the foreign manufacturer employed the arm of political injustice to keep down and ultimately strangle a competitor with whom he could not have contended on equal terms".* (Italics are mine).

How another indigenous industry has been ruined along with its importance acquired towards 1885 by supplying markets outside of India with hand-loom gunny cloth and bags will be referred to in a subsequent chapter (*vide* post p. 402).

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that cloth weaving was by far the most extensive industry in India, and I think it is fair to say that the aggregate production was one of the great facts of the industrial world of the year 1600. * * * Indian looms had a practical monopoly of the home market for clothes and in addition had export market".

Then again Ralph Fitch in his *Travels* (1583) records :—

"From Bacola I went to Serrepore (Sripur). * * * Great store of cotton cloth is made here.

* * * * * * *

"Sinnergan (Sonergaon) is a towne sixe leagues from Serrepore where there is the best and finest cloth made of cotton and that is in India.

* * * * * * *

"Great store of cotton cloth goeth from hence and much rice, wherewith they serve all India, Ceylon, Pegu, Summatra, Malacca and many other places".

In Bengal, the use of coarse, home-spun cloth was given up long ago in favour of imported fabrics and other provinces have followed in its wake. Why should one spin and spin and spin and drudge for days and months together when obliging Lancashire and, latterly, Japan are at his door offering cheaper and finer piecegoods? Ye heavily indebted, starving peasantry of Bengal, forget your woes by imitating your betters; give up the *Hooka* and smoke cigarettes, shun pedestrian journeys and use the motor-bus, that passes by your door, drink tea and "kill" your appetite, thus reducing your dietary bill! And by all these scientific methods fill the pockets of the foreign exploiters. When you have occasion to go to the district town for purposes of litigation fail not to visit the cinemas and buy torch-lights. My reader will forgive me if I have to write in a serio-comic vein.

Political economists tell us that it is sheer madness for a country to go on producing articles of consumption for daily use when they can be imported much cheaper and a large section of our *intelligentsia* sneer at our humble efforts for the revival of the once flourishing universal home-industry. One might as well strive to bring back the extinct dinotherium in the present age as the *Charka*. There is, however, a glaring underlying fallacy which somehow escapes their notice. In most parts of Bengal there is but one staple crop, namely the *aman* rice, which does not occupy more than three months' time, including sowing and reaping. The remaining nine months of the year are absolutely wasted away in idleness. In some parts of the province there are over and above the rice or the jute—the *rabi* (winter) crops, including mustard and the pulses; but even there the peasants have very little to do five or six months of the year. In these days of keen world competition a people which voluntarily, nay wilfully, commits itself to enforced idleness for such a long period in the year cannot expect to survive in the long run. Its effects are already appreciable in the shape of semi-starvation or malnutrition and hopeless indebtedness. Even in East Bengal

in the regions washed by the Padma, the Jamuna, the Dhaleswari, the Brahmaputra etc., where, owing to deposit of silt after subsidence of the flood, the land is highly fertile and yields an abundant harvest of rice, jute, pulses etc., the peasantry, though on the whole more prosperous, is also in the clutches of the *mahajans* (money-lenders).[2] The fact is that in these areas there is an over-congestion of population, as many as 600 to

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[2] The wasting away of their time in idleness by the peasants has been noticed by several writers. (*e.g.*, Panandikar: *Wealth and Welfare of the Bengal Delta*, p. 150). *Cf.* Also Jack: "The time-table of the cultivator, therefore, when his land is unfit for jute, shows three months' hard work and nine months' idleness; if he grows jute as well as rice he will have an additional six weeks' work in July and August".

"Gossip, intrigue and litigation occupy his spare time sufficiently as long as he has food to eat and money to spend".—*Vide*—L. Burrows: *Agr. Comm. Rep.*, vol. iv., p. 474.

The following account of peasant-life during the slack seasons in the agricultural (*i.e.*, non-industrial) countries of Europe may be of interest as showing how the people utilise the time when no outdoor work is possible. In Bengal both the Hindu and the Moslem women being purda-ridden are precluded from taking part in any kind of outdoor labour; whereas it will be seen that the womenfolk of Europe materially help in earning an extra income over and above their household duties. Thus we read:—

"The whole family rises at the first sign of dawn, and after some hot coffee and bread starts work. The peasant, his grown-up sons and male helpers go to work in the fields—wheat, corn, rye, oats, maize, millet and buckwheat (the latter as an autumn crop) are grown; potatoes, peas, turnips, beans, beetroots, cabbage and cloves, planted everywhere, but only rich farmers go in for hop.

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"While the husband is busy in the field, meadow or vineyard, the wife packs her big basket to go to market with. It is about a yard long and carried on the back. In it she carries fresh vegetables, some fruit and perhaps a loaf or two of homemade bread always eagerly bought in town, and when the long basket is nearly full she squeezes a short round basket at the top. Sometimes she carries eggs in it, but mostly a good many hens.

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"The easiest time for the peasant is midwinter. Then he is obliged to stay inside, and while he mends pots and pans, does a bit of carpentry and sharpens sickles, knives and saws, *women are spinning, weaving* and *even embroidering.*

900 living in a square mile. Owing to the over-fragmentation of the arable land a constant stream of emigration from Mymensingh to Assam is going on. The sturdy people, practically all Mahomedans, being free from the baneful caste-prejudices, also enlist in numbers as lascars (crews) in the inland navigation and ocean-going steamers, and thus to a certain extent relieve the congestion.

Fertility of the soil is by no means synonymous with the prosperity of the people living thereon— rather the reverse is often noticed. The case of Rungpur may be cited in illustration of this apparent paradox. The land in this district is very fertile and it yields several crops in the year, including rice, jute, tobacco, and vegetables of various kinds. The inhabitants of the district are, however, very backward and illiterate. Often they are contented with cultivating just enough for their bare subsistence, and are indolent to a degree and are evidently

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"Not the men only but the women, too, know how to prove themselves beasts of burden capable of astounding feats of endurance. You have but to look at them as they tramp over the mountains, tall and erect, with their immense loads accurately balanced on their heads, like the women of old, or when their freight is bulky, packed into a basket carried on their backs. Often, on the top of the great heap may be seen the curly head of a baby—the latest born. The mother takes it with her thus, nomad-fashion, and gives it her breast on the way.

"The nomadic instinct, indeed, is singularly prominent in the population of the Friuli. In groups of two or four or five, with a baby in their big basket and sometimes a little toddler holding on to their skirts, the Friuli women traverse the whole of Italy, selling *mescuglieri*, as they say in their own dialect, spoons, yarn, needle-cases and other such odds and ends, but above all domestic utensils of wood made by their menfolk during the long winter. And what is strange and characteristic about it is that in these peregrinations, which continue for months and months and which sometimes are extended beyond the frontier, no man ever accompanies them. These sturdy provincial Amazons are entirely independent in their little commercial ventures". —*Life of Benito Mussolini* by Margheritta G. Sarfatti, pp. 134-35.

Throughout the Madras and Bombay Presidencies and even in Behar and the United Provinces and in the Punjab, women of certain peasant classes, however, help considerably in the field-work.

contented with their lot, sitting idle for several months in the year. They have of course given up the *Charka.* It must, however, be admitted that the Mahomedan population of Rungpur living side by side with the Hindu Rajbansis, though derived from the same stock, is somewhat more energetic.

In marked contrast with the peasantry of Bengal, those of the Meerut district and the Punjab are still plying the *Charka,* and the yarn, generally of ten to twelve counts, is woven into coarse cloth for their own use. During my recent visit to Meerut, in December, 1929, I was taken to a village twenty miles north of the city named Khatauli and to my infinite delight and no less surprise I found in almost every household the primitive machinery at work. The matron, the daughter, and sometimes the daughter-in-law sitting in a circle basking in the sun and plying the wheel. But "civilization" even here is on its slow and imperceptible march. The men in their turbans, and now and again in their *dhoties,* are going in for the finer imported stuff. A few sacrificing young men belonging to the local Gandhi Asram are trying to encourage the womenfolk by buying their surplus products ; but the funds at their disposal are very limited. Had there been an organisation to look after this struggling indigenous industry almost miraculous results might have been achieved. But to the Department of Industry here as in Bengal the *Charka* is anathema, as its successful revival would spell ruin to Lancashire textile manufacturers. Mr. Ramsay MacDonald uttered no more than bare truth when he wrote "one can feel melancholy to hear it (the government) pride itself that it has provided cheap cotton (i.e. cotton goods) at the expense of the old industries. It is blind to the important items on the debit side of that account". In the town of Meerut there are scores of *raises* and wealthy *banias,* but they are, as a rule, uneducated and impervious to modern ideas. Some of them would gladly subscribe liberally to any fad promoted by the British Collector or Commissioner or spend Rs. 50,000 in processions and *tamashas* on their sons' and daughters' wedding ; but they turn a deaf year to any appeal for pecuniary help calculated

to do permanent good to the country. Here I must pause for a while to dwell upon the psychological aspect of the problem. It is generally found that in Bengal peasants who are comparatively well off disdain manual labour and prefer to imitate the gentlefolk. In some parts of lower Bengal they toil hard for a month or so in the beginning of the monsoon, for the sowing of the *aman* paddy ; they then sit absolutely idle for months together. The crop is even reaped with the agency of hired labourers from the up-country.

The tragic aspect of the situation now stands revealed in all its naked deformity. The peasant, eschewing his coarse home-spun in favour of fine Lancashire cloth, indulging in foreign cigarettes and giving up home-grown tobacco, refusing to walk a distance of two to four miles from his village to the nearest district town, generally for purposes of litigation, but jumping into the nearest motor-bus and gladly paying a two-anna bit—all these mean that he parts with so much extra produce of the land in exchange for which he finds the money wherewith to enjoy the amenities of modern "civilized" life. It is true that in the United States of America every fifth or sometimes third farmer drives in a Ford-car ; but then with him time is money ; he is fairly educated, intelligent enough to apply the latest scientific methods of agriculture and thereby to increase the produce of his land. But his counterpart in Bengal steeped to the marrow in ignorance and illiteracy ; following the time-honoured primitive methods of cultivation[3]

3 I quite agree with Dr. Voelcker when he says : "What does, however, prevent them from growing large crops is the limited facilities to which they have access, such as the supply of water and manure". But this does not shake my argument. During my recent tours in Saran, Meerut etc., the miserable-looking clumps of sugarcane made me almost weep. No less primitive was the method of expressing the juice and of boiling it down over naked fire. No wonder that the planters of Java following the scientific methods of agriculture and of expressing juice from the cane and boiling it in vacuum pans are ousting the former.

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and yet adopting western "civilization" simply courts ruin.[4] There are positive signs that except in the deltaic areas the fertility of the soil throughout India is on the decrease. Sixty years ago the yield per acre of the *rabi* (winter) crops e.g. mustard, pulses in and about my native village was almost double that of today. Not only is the land not allowed to lie fallow but scarcely any manure is applied. Year in and year out the same soil is made to yield the same kind of crop with the result that it is impoverished, the outturn of the crops diminished, and the quality deteriorated. Superficial observers, as also our official apologists who want to make out a case for the prosperity of our peasant-folk, complacently point to the increased consumption of imported goods referred to above. A people in a chronic state of starvation or indebtedness, with its producing capacity diminishing and yet going

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4 Cf. "* * When the [Red] Indians were the sole inhabitants of the wilds from whence they have since been expelled, their wants were few. Their arms were of their own manufacture, their only drink was the water of the brook, and their clothes consisted of skins of animals, whose flesh furnished them with food.

"The Europeans introduced amongst the savages of North America fire-arms, ardent spirits, and iron: they taught them to exchange for manufactured stuffs, the rough garments which had previously satisfied their untutored simplicity. *Having acquired new tastes, without the arts by which they could be gratified*, the Indians were obliged to have recourse to the workmanship of the whites; but in return for their productions the savage had nothing to offer except the rich furs which still abounded in his woods. Hence the chase became necessary, not merely to provide for his subsistence, but in order to procure the only objects of barter which he could furnish to Europe. Whilst the wants of the natives were thus increasing, their resources continued to diminish.

"Among the North-Western Indians particularly, the labour of supplying a family with food is excessive. Day after day is spent by the hunter without success, and during this interval his family must subsist upon bark or roots, or perish. Want and misery are around them and among them. Many die every winter from actual starvation." De Tocqueville—*Democracy in America*; i, p. 401.

The above description represents a state of things which prevailed a century ago. The Red Indian has now been almost wiped out of existence. The Bengali peasant likewise courts ruin.

in for the glamour of imported tinsels, only commits economic suicide. Its fascination for the tawdry dress, gaudy gewgaws and tinsels of modern "civilization" representing the "workmanship of the whites" is only comparable to that of the bird for the rattle-snake—a fascination which lures it to its doom.

It is not necessary to multiply instances to prove how millions of spinners, weavers, cutlers, smiths, boat-men and carters have had their bread snatched away from their mouths by the triumphant march of modern "civilization."[5]

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[5] Cf. "India had, however, purest wrought iron and finished steel and the specimens still existing in the shape of lintels, monuments and arms have been the envy of modern metallurgists. It is sad to reflect on the gradual decline of the indigenous iron industry. The race of iron smelters, *lohars*, has become almost extinct. Similarly the population of backsmiths, *karmakars*, has been steadily losing ground. What a vast number was employed by kings alone for making armour and arms. How many workshops were there for making nails only, door fittings, locks and padlocks. The present abnormal pressure on land . . . . is largely due to the dwindling away of the industries of old. Take the case of traffic. What a prodigious number of men found employment in carrying goods by land and by water! Think of the millions whose calling was the building of chariots, carts and boats. Steam-driven vehicles and automobiles are now penetrating the peaceful villages."—J. C. Ray. *Cal. Rev.*, Oct., 1927.

Cf. Again—"In fact, all the evidence goes to show that the social and economic disturbances which have followed in the wake of Western civilization breaking in upon natural or primitive stocks and upon communal organisations based on a plan of simple outdoor living, has led to a deterioration of the Indian constitution with loss of staying power—the power to resist and to recuperate. The increasing pressure on the soil of an increasing agricultural population, together with the economic destitution of the artisan classes exposed to a ruthless competition with the forces of modern machinery and capitalism, is no doubt the ultimate cause of this loss of staying power, as evidenced by the phenomenal excess in our mortality and sickness rates; and in some parts of the country as the Bengal delta, the neglect of the old irrigation system, aggravated by colossal blunders of embankment and railway alignment, appear to have been responsible for turning a land of peace and plenty into a home of stark want and fell disease".—Sir Nilratan Sircar. This eminent physician's diagnosis is equally correct.

Also Cf. "Many now make use of the railway, and I have heard bitter complaints from Bengali boatmen of the loss of custom sustained from this cause. 'Formerly', they said, 'a gentleman taking his family

Sir John Birdwood writing in 1880 appeals to "Indian native gentlemen and ladies that they should make it a part of culture [I should add of honour too] never to wear any clothing but of native manufacture".

I hope I have said enough to convince my readers that the adoption of European ways of life by the intelligentsia as also to a modified extent by the peasantry and the consequent increased consumption of imported articles by no means argues prosperity, rather the reverse. There is not enough food-stuff grown in the land for the support of the population and yet the purchase of the foreign luxuries goes on increasing. Our political economists, who are mere college dons, have only a pharisaical sneer for the *charka;* but they are silent when asked to find any sort of occupation for the six to nine idle months in the year. The thirty crores which Bengal now pays

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to Benares or Allahabad, or other places of pilgrimage, would hire a boat, and would be weeks or even months on the journey; but now he engages a carriage in the train, and the whole distance is performed in one day".—Beveridge: *Bakarganj* (1876), p. 227.

Cf. More orders against use of foreign goods and luxuries.

"The Shanghai District Government, on Aug. 1, issued a further proclamation urging the Chinese people to consume only native made goods and to abstain from the use of foreign luxuries. The proclamation also called upon Chinese manufacturers to reduce the selling prices of their products and to improve their manufacturing methods".—*The China Weekly Review*, Aug. 9, 1930.

In the field of National Reconstruction Chinese students must wear native made cloth.

"The Ministry of Education at Nanking on May 16 issued a circular order to Government educational institutions of all grades throughout the country giving instructions that all students must wear uniforms made of native (cloth) and where possible must confine their purchases to native products".—*Ibid.*, May 24, 1930.

Chinese labourers object to new Swedish Match Factory.

"The proposed establishment of a large match factory at Chowkadoo, Shanghai, by the Swedish Match Trust has evoked agitation in Chinese labour circles and a circular telegram recently issued by the Shanghai General Labour Union Preparatory Committee calls upon the people and Government authorities to prevent foreigners from opening the factory in China, so as to protect the domestic match industry.—*Ibid.*, June 28, 1930.

for the enforced idleness to which she has been doomed used to be circulated every year among her own spinners and weavers. By the ruin of her national industry she sends this tribute to her Lancashire and Japanese capitalist masters.

Once you have allowed your active habits to be lost, it is all over with you. So it is with mankind in general. The time which the womenfolk of Bengal not only of the peasantry but also of the respectable classes used to devote to spinning and embroidery is now simply wasted away in idle gossip and in an extra dose of slumber during the day. Renan has drawn pointed attention to the mischief done when an entire class of people is taught the seductive charms of idleness.

"Great is the joy of the poor man, when tidings of happiness without work are brought to him. The beggar to whom you say that the world will be his, and that, spending his life in doing nothing, he is yet accounted noble in the Church, and his prayers have so much the more efficacy, that beggar soon becomes dangerous. It was noticed in the movement of the last Mersianists in Tuscany. The peasants, indoctrinated by Lazaretti, having lost the habit of work, were reluctant to resume their ordinary life. As in Galilee, as in Umbria in the time of Francis of Assisi, the people imagined they could conquer heaven by poverty. After such dreams, they do not willingly resign themselves to take up the yoke once more. A man will turn apostle rather than resume the chain which he has believed broken. So hard it is to bend all the livelong day under a humiliating and thankless task".—*Marcus Aurelius.*

The Bombay Cotton Mills at best give employment to 3 or 4 lacs, as do the jute mills on the Hughli ; and the Cawnpur mills find occupation, it may be, for another couple of lacs. Utmost two millions earn their bread in the industrial centres of India, but what of the remaining 318 millions? Will you wait till Manchesters, Liverpools, Glasgows and Dundees spring up here and transfer 70 per cent. of the rural population to the urban areas? Are you going to industrialise rural India? With the exception of Calcutta and Howrah there are no towns in Bengal. The district towns are only towns in name ; they are the localities where the law-courts have sprung up and they support a parasitic population. I am

afraid you will have to wait till doomsday. Apart from the question of the desirability of bringing about this happy consummation, have you, my Bengali brethren, ever shown sufficient capacity for it? Why then all this tall talk about opening up of big industries and relieving congestion?

After all, India is an agricultural country and must ever remain so. The problem is how to increase the productivity of the soil by improved methods of agriculture, and how to supplement the scanty income of the dwellers in the villages by the introduction and encouragement of a subsidiary occupation. I hold that spinning and weaving are the two parts of the one cottage industry which admits of universal application in India.

A simple calculation will show the immense potentialities of the *charka* for which Colebrooke pleaded hard more than a century and a quarter ago. The population of India is 320 millions. If a fraction of the millions in the villages—say only one-eighth—were to earn only 2 pice (a pice=one farthing) a day the total would amount to 80,000,000 pice or Rs. 12,50,000 per day, which works out to 365 × 12,50,000 or Rs. 45,62,50,000 crores per year. Industrialists now-a-days talk of mass production ; but in India *we have to count population in masses ;* hence earnings by the teeming millions, however insignificant they may appear at the first blush, *when calculated in mass,* amount to crores. The well-known aphorism in the *Hitopadesa* (Salutary Lessons)— तृणैगुणत्वमापन्नैर्बध्यन्ते मत्तदन्तिनः— i.e. a single blade of straw is by itself very weak, but bundles of it when twisted into a rope are strong enough to bind a mad elephant—holds literally true here.

My speeches and writings on Khaddar during the last seven or eight years, if put together, would fill a big volume. Yet it is necessary to harp on the subject because of the callous indifference of a section of our intelligentsia who would do nothing, create nothing, but simply live as parasites, and indulge in cheap sneers and gibes from their snug and comfortable easy chairs in the towns. That *Charka* is not only a

real boon but an insurance against famine is proved to demonstration by the recent happenings in North Bengal. In the course of the flood relief operations of 1922-23, certain centres round about Atrai (Rajshahi) and Talora (Bogra) were selected for experiments in this direction. During the time of dire distress, some one thousand *charkas* were distributed and several maunds of yarn began to be collected at the end of 4 or 5 months' operations. The yarn was locally woven into *Khaddar* thus giving additional relief to the weavers (jolas). The coarse home-spun had a ready sale in Calcutta through our organisation the *Khadi Pratisthan*, thanks to the idealism and patriotism of young Bengal. Matters were looking bright and favourable. Unfortunately, with the prosperous outlook of the next and the following year's crop of jute and paddy, the *charka* began to be discarded and the supply of *Khaddar* automatically diminished. The *Pratisthan* since then had to drag its existence at a loss of four to five thousand rupees a year. However, we persisted in our efforts as in a few localities the helpless widows and their daughters and daughters-in-law had appreciated the *charka* and stuck to it. The net result has been that starting from yarn of eight to ten counts, we have got to thirty to forty counts. Moreover, as the spinners have acquired the old dexterity, the price of the yarn has been considerably lowered. The whole-time spinners earn as much as two annas or more and the part-time one anna a day. Owing to the abnormally low price of jute due to trade slump (1931) we are literally besieged by applicants. Following in the wake of the universal acute distress, there is the terrible ravage caused by the recent floods and the miseries of the people know no bounds and the cry has been raised: *"Give us charka: give us charka."* Relief operations organised by various Calcutta bodies are offering help in the shape of doles of rice, but they touch only the fringe of the affected areas. Moreover, owing to trade depression, the collection of money is poor. Had the *charka* been in vogue, every able-bodied spinner including boys and girls of seven years and upwards could have

easily earned on an average an anna a day, which would have secured each individual not only his rice but also other ingredients of his meal, including oil, salt, dal, etc. No one has got the Fortunatus' purse. As the fund gets exhausted within a short time, relief operations cease as a matter of course and the sufferers are left to their fate. Then again, dole-giving, though it may be a duty and necessity for the time being, has its objectionable feature as well. If continued, it demoralises him that gives and him that takes ; whereas if one can give some return in exchange for the help he receives, his self-respect is not hurt. Moreover, as the yarn has a market value, the sale proceeds again go to maintain the spinners and the cycle of operations goes on.

Motor lorries are constantly plying in the busy streets of Calcutta carrying loads of two to three or even five tons each. Within the last few years a large number of wheel-barrows and man-driven carts exceeding a couple of thousands have sprung into existence carrying loads of five, ten, fifteen or twenty maunds. The smaller ones are pulled by one or two men while the big ones are dragged sometimes by two men, another two pushing from behind. Here it is man-power competing not only with bullock-carts but also with machine-driven tractors. The fact is these hard-working toilers come from Behar and the U. P. where the population is congested and it is difficult to earn even a precarious livelihood. Hence the contention that human labour cannot compete with machine does not apply to countries like China or India where the teeming millions being in a state of semi-starvation are glad to work for a pittance, which would be regarded as ridiculously scanty in an industrial country.

Mr. Brajendranath Banerji has been doing a public service by unearthing from the newspaper-files of a century or more ago valuable materials. The following pathetic letter which appeared in the columns of the *Samachar Darpan* (*ante* p. 9) fully bears out Colebrooke's lament and proves what havoc the foreign imported yarn has made in the economics of India.

"Charka is my bread earner
Charka is my son".

Below is given the free English rendering of the representation of a Spinner.[6]

Santipur,
5th January, 1828.

"To the EDITOR, *The Samachar.*

I am a spinner. After having suffered a great deal, I am writing this letter. Please publish this in your paper. I have heard that if it is published it will reach those who may lighten my distress and fulfil my desire. Please do not slight this letter from a poor sufferer.

I am very unfortunate. It will be a long story if I were to write all about my sufferings. Still I must write in brief.

When my age was five and a half gandas (22) I became a widow with three daughters. My husband left nothing at the time of his death wherewith to maintain my old father and mother-in-law and three daughters. I sold my jewellery too for his *Sradh* ceremony. At last as we were on the verge of starvation, God showed me a way by which we could save ourselves. I began to spin on *Takli* and *Charka.*

In the morning I used to do the usual work of cleaning the household and then sit at the *Charka* till noon. But the foreign yarn [imported from Lancashire] has brought about our ruin only. Men cannot use the cloth out of this yarn even for two months, it rots away. I therefore entreat the spinners over there, that, if they would consider this representation, they will be able to judge whether it is fair to send yarn here or not.

A representation from a suffering Spinner."

[6] The poor woman writes under the impression that it was the hand-spun (charka) yarn which on account of its cheapness was finding a ready market. She naturally could not dream that the imported yarn was the product of spindles driven by steam-power.

CHAPTER XXII.

MODERN CIVILIZATION—CAPITALISM, MECHANIZATION AND UNEMPLOYMENT.

I. OVER-PRODUCTION AND CONSEQUENT UNEMPLOYMENT.

What economic chaos has been brought on the Western countries is evidenced by the recent dismal tale of unemployment in Europe and America.

It is well-known that a world-wide economic depression has resulted in many evils. One of them is unemployment which is growing by leaps and bounds in many countries, e.g. England, U. S. A., Germany, etc. India too has her huge army of the unemployed though it is significant to note, no statistics of these unhappy people are kept in this country. A cable from London now informs us that the problem of unemployment has begun to give profound cause for anxiety to the U. S. A. Government. Eight million people, it is reported, are out of work in the United States. The New York correspondent of the *Times* says that "large middle-class people have been reduced to desperate condition. Thousands of clerks are working or seeking work as common labourers. . . . . Many such families are making their children stay in bed all day as they cannot afford the fuel needed to warm the house".

"There are also more gruesome stories to be told. 'The city authorities', says a message, 'have had to place locks on all dust-bins left outside houses overnight to prevent the starving unemployed from eating rotten food out of them and so poisoning themselves. A man, it is said, stole a loaf of bread and was caught. He felt the disgrace so much that he hanged himself.' Well, happenings like these are not quite rare in our country in times of famine or similar distress. Dire want has driven people in this country to sell their wives and children and even to commit suicide. What is striking, however, is that

America, the home of plenty, the richest country in the world, should have to undergo such straits. A sum of £2,200,000 is said to be necessary to afford relief to these unemployed. But it will not be difficult for the American millionaires to secure the amount. How is it that inspite of there being so many millionaires in America such shocking things are happening in that country?"—From a local paper dated, December 26, 1930.

Fortunately, a new school of economists is springing up, which has not failed to look deeper into the problem and diagnose the cause of the world wide unemployment malady. About two years ago (1928) *The Statesman* of Calcutta observed:

"At present no one has any cure for the incipient manufacturing crisis in the West but restriction of production and consequent unemployment. To select two industries only; America makes as many boots and shoes in six months and blows as much glass in seventeen weeks as she requires for a year. She must either dump the surplus elsewhere or shut up her factories. Lancashire and Yorkshire are in similar plight. Every country has taken to manufacturing, and machines have increased production many times over. But there is no corresponding increase in the possibility of consumption. The mass of the world remains too poor, and the goods cannot be distributed. Above all in the continents of Asia and Africa material progress has made so little advance that the market is trivial in comparison with the population. The people's wants are few." I may add another notable instance. Henry Ford was turning out of his factory in 1920-21, 1,250,000 cars.[1] Counting the working days as 30 i.e. deducting sundays and holidays, the output would come to 4,000 a day. Latterly Ford, in his rage for out-selling his competitors, increased it to 6,000 a day; while other makers also emulated him in this mad pursuit. The result has been a crash. Can the world

1 Henry Ford: *My Life and Work*, ed. 1925, p. 145.

go on buying cars *ad infinitum*? The present slump and trade depression are in no small degree traceable to over-production of articles.

The above was written some two years ago. As I am sending it to the press I read in a local journal (11-3-32):

"Mr. Henry Ford's business philosophy that mechanization does not reduce the number of workmen but rather increases it as well as his wage; doctrine that the higher the wages the better it is for business, has suffered a rude shock from the course of events during the last two years. We have been told that in his agricultural farm he has discarded machinery and has gone back to primitive methods in order to employ the largest number of workmen. High scales of wages,—he set the fashion in them—are things of the past, and he has bowed down to the inevitable and followed the general practice of wage reduction."

II. Machine Driving Men Out of Work.

That a crisis of unemployment is again upon us, and that it is of a new and unexpected type, coinciding not with a period of depression, with curtailment of production and the shutting down of industries, but rather with an era of abnormally large production, is asserted by Evans Clark, writing recently in *The New York Times*. Mr. Clark holds that the consequent inability of the industries to absorb the men whose work machinery is now doing, may well account for present labour conditions. He writes: "Unemployment has always been associated with hard times. When business was bad, the factories laid off their men. But business always picked up again, and jobs were to be had for the asking.

"The present unemployment crisis is distinctly different. No marked and general decline has set in that can be compared to conditions in years of depression. The United States Steel Corporation—as good a barometer as can be found for he

business atmosphere—is operating at 89 per cent. of capacity this month, compared with 60 per cent. at the close of last year.

"The use of electric current—another good index of industrial activity—registered a 7 per cent. higher level than in the same month last year.

"Some other influence is at work which has not been generally recognized, but which, gathering strength with the years, now emerges as an issue of national importance. It begins to look as if the onward march of machines into every corner of our industrial life had driven men into the ranks of the unemployed. Only on this assumption can the paradox be resolved.

"So far, the machine has created enough new jobs to take care of the workers it has displaced by its vast increase in production and the expansion of subsidiary industries. There is no assurance, however, that this happy balance can always be preserved. The present difficulty is evidence to the contrary.

"Three lines of inquiry are in order. First, is there an unemployment crisis to-day? Have American plants been shut down in sufficient numbers to account for the situation? If production has not fallen off sufficiently to account for the number out of work, it must then be assumed that increasing mechanization is a factor in the situation.

* * * * *

"The next question concerns production. One would expect to find a slump in factory output that would roughly correspond to the decrease in jobs. But precisely the reverse has occurred. The factories and workshops of the United States produced more goods and services in 1927 than at any time in history, with the exception of the previous year, while the output has grown and the number of workers required to produce it has actually decreased since 1919.

* * * * *

"In the building industry especially have labour-saving devices made spectacular advances. The trenching machine,

the gasoline crane, the bucket-conveyer, and other devices have gone far to make construction a machine industry.

* * * * *

"Coal-mining is fast being transformed into a factory routine. Already 71 per cent. of American bituminous coal is mined by machinery. The coal companies could dig a year's supply of bituminous coal to-day with only a little over one-half the labour it would have required in 1890. Steel companies can produce almost three times as much pig-iron to-day as they did in 1904 with the same crew of men.

"It is estimated that 45,000 harvesting and threshing machines have replaced more than 130,000 high-priced workers on American farms.

"The full story of men displaced by machines has yet to be written. Some of the men whose places are taken by a machine are given other jobs in the same concern, but such an absorption can only take place when the firm's operations are expanding faster than labour-saving devices are being installed. In the light of the figures, it is not surprising that the present slump in general business activity, far less severe than that of 1921, should have already produced an unemployment crisis much greater in proportion".[2]

The climax has now been reached. Recently a deputation of the workless waited upon President Hoover. Their petition tells its own tale:—

"In this land of ours the soil is rich, the earth is bursting with abundance, bins are filled with grain, storehouses are

2 Cf. "The craze for industrialization has seized many of our public men, but the example of Europe and America ought to be an eye-opener; as has been well-said—'Half the people in industrial countries are racking their brains in devising labour-saving appliances and the other half in solving the question of unemployment'. The latest figure in England is two millions, while according to Mr. Thomas there were over three millions unemployed in Germany and half a million in Italy and the unemployment figure in the United States was given as from three to six millions".—*Vide* my address on the occasion of opening a Swadeshi Exhibition at Madras, July 15, 1930.

laden with goods, shelves are overflowing with merchandise, vaults are stacked with bars of gold, and the very channels of trade are choked by undistributed surplus products of mill and mine and farm. Yet 11,000,000 men and women offer their brawn and brain to masters of work in vain. They stand hungry in bread-lines, mute symbols of an economic order out of joint." *The Statesman*, Jan. 16, 1932.

III. Labour-saving Devices

"Stuart Chase gives many varied examples of displacement of human labour. By means of a new electric hand-saw one man takes the place of four ; a power chisel does the work of ten men. The dial system on the telephone takes the place of switchboard girls for local calls. A single week records fourteen new inventions and discoveries. Seven men now do the work which formerly required sixty to perform in casting pig-iron. One man replaces 42 in operating open-hearth furnaces. A brick-making machine makes 40,000 bricks in an hour. It used to take one man eight hours to make 450. Simplex and Multiplex machines are eliminating the need for trained telegraphs—and the message is automatically printed at the receiving office. In type-setting a man at a central office can set type in offices as many as 500 miles away—and this has resulted in the dismissal of thousands of printers in U. S. A."—Demant: *This Unemployment*, pp. 34-35.

"In the tobacco trade, a cigarette machine recently installed is capable of turning out 12,000 cigarettes a minute, * * * * * * * Only three employees are needed to tend it and its productive service equals 700 pairs of hands."—*op. cit.* p. 36.

"The Statist adds: 'The increase in productivity of each worker has gone hand in hand with an increase in the number of unemployed'."—*op. cit.*, p. 39.

The Manchester School of Economics made the fatal mistake of starting from the premises that the supremacy of

Lancashire in textile industry would last for ever; it never occurred to them that a time would come when the Continent of Europe as also America and the "unchanging" East would wake up and prove to be formidable competitors in the field. Matters thus went on smoothly for nearly half a century and 80 per cent. of the population of England was transferred from the countryside to urban area. As you sow so you reap, and now the unemployment problem is puzzling the politicians and the economists.

I have lately been making an extensive study of China as her economic condition is in many respects comparable to that of India. She has a population of 480 millions i.e. 48 crores. Let me quote an American authority, by no means very friendly to China.

"Coincident with these processes, railways were throwing out of employment hundreds of thousands of coolie burden bearers; steamboats on the rivers were taking the livelihood out of the mouths of hundreds of thousands of men who had carried China's inland water traffic in junks and canal boats, and were making useless the work of the tens of thousands who had acted as trackers and hauled the old-style ships up the Yangtsze River gorges. Foreign factories were sending machine-made goods into China at the same time, and foreign capital was building modern factories in Chinese cities, thereby helping to destroy the household and small shop industries which had existed with little change for centuries.

"The combination of these forces created unemployment and want".—Abend: *Tortured China*, pp. 234-5.

Again: "Contact with the mechanical civilization of the Occident has undoubtedly been a tragedy for the Chinese people".—*op. cit.*

Listen again to what an eminent cultured Chinese has got to say on this subject:

"But China has not been able to shut the door in the face of the invasion of foreign machines and cheap machine-made goods, and those two invasions, making idle tens of millions

of our skilled hand workers and coolies, have ruined us, just as an influx of millions of Chinese labourers would have upset the American industrial scheme".—*op. cit.*, p. 281.

Another authority arrives at exactly the identical opinion. The sudden impact of highly progressive and industrially advanced nations on a people conservative to the core and which has been moving in its own way for millenniums has spelt economic disaster to China. "The province of Szechewan and Western China has an estimated population of 100,000,000. The only transportation facilities are those through the rapids of the upper Yangtsze as it passes through the great gorges. The junks must be pulled up the swift current by large crews of men—sometimes fifty to one hundred per vessel. The number of people dependent upon this trade has been estimated at from five hundred thousand to one million. Recently it was discovered that steamboats could safely make the trip at certain seasons of the year. Both English and American owned shipping lines then put on regular service of steamboats for freight and passengers. It is reported that this traffic was so profitable that the cost of a steamer could be covered in a single trip. The operation of the steamboats added greatly to the security of the traffic, and so took the freight. The junks could not successfully compete ; not only on account of cost, but because many were overturned by the wash of the steamboat. Meanwhile, the thousands of boatmen were out of a living, as were also the large population of trackers, ship-wrights, caulkers, rope-makers, restaurant and hotel-keepers etc., that served them. * * * * The situation is tragic ; a few American shippers gain these profits by depriving thousands of Chinese of their living wage of ten cents per day—and in so doing destroy an occupation traditional for generations".—*China: A Nation in Evolution*, pp. 425—7, by Monroe.

In India too, capitalism, specially British capitalism "in ruthless pursuit of its own interests persistently and deliberately ruined the old indigenous Indian Home industries without

affording the population which it robbed of its former means of livelihood new avenues of employment." An obvious example will illustrate this point.

Hitherto husking of paddy was the only home industry in Bengal by means of which poor widows with infants in arms could eke out a miserable living. Now thanks to the "march of civilization", power-driven rice-mills are springing up all over Bengal with the rapidity of the prophet's gourd. When it is remembered that a single rice mill snatches away morsels of bread from the mouths of hundreds of the destitute, the result can well be imagined. A few capitalists are lining their pockets at the expense of thousands of their helpless sisters. It is for this reason that the efforts of the great leader of the Indian masses are always directed against modern mass production by machinery.

"The hatred of machinery, the hatred of capitalism which burns so strongly in Gandhi is the reflection of the hate of millions of Indian peasants and handworkers whose traditional basis of existence was completely destroyed by capitalism and who were excluded from the possibility of existence on a capitalist basis as a factory proletariat * * * *

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Gandhi also sees everywhere only the abuse of machinery and the enslaving of the masses in the interest of a few employers which industrialism has brought about. The machine wrecking of Gandhi, therefore like all his doctrines, is the result of this exploitation. In attacking machinery, Gandhi is protesting against its abuse. Thus Gandhi says, 'I am not fighting machinery as such, but the madness of thinking that machinery saves labour. Men 'save' labour until thousands of them are without work and die of hunger on the streets. I want to secure employment and livelihood not only to part of the human race but for all ; I will not have the enrichment of the few at the expense of the community. At present the machine is helping a small minority to live on the exploitation of the masses. The motive force of this minority is not humanity

and love of their kind, but greed and avarice. This state of things, I am attacking with all my might. * * * * * Machinery must not strive to cripple and stunt human limbs. It must one day cease at last to be a mere tool of acquisitiveness ; then the workers will no longer be overstrained and the machine will be a blessing instead of danger. I am aiming at a change in working conditions of such a kind that the mad race for money will come to an end, and the worker will not only be adequately paid, but will also find work which is something more than mere slavery. On these conditions, machinery might be as useful for the men and women who work it as for the state which possesses it'." (*Lenin and Gandhi* by Rene Fillöp Miller pp. 230-231).

And who can say that Gandhi is very wrong when one reads the following description of "modern civilization" based on capitalism by Wesely O Howard, a Justice of the Supreme Court of New York?—

"And man has also built modern cities ; New York, London, Chicago, Paris, Berlin, Vienna, Buenos Aires—vast vortexes of civilisation—the human atoms moving, whirling, hurrying, coming, going, disappearing. He has erected "sky-scrapers" reaching up till they touch the clouds, 700 feet into the air higher than hawks or eagles perch ; and there human beings live and breathe and breed. And under these cities and "skyscrapers" he has dug "subways"—great networks of subterranean highways ; paved, arched, lighted, spacious, winding, ill-smelling. Swarms of human creatures, like ants rush down into these subterranean passages and are hustled and whirled to their destination.

"And men, in their modern cities build broad, open boulevards ; beautiful, healthful, ample thoroughfares ; and they also build dark, deep, narrow streets, like mountain canyons through which human torrents pour as floods, plunge through gorges. And they construct great parks and erect statues and have zoological gardens and maintain hospitals ; and they have damp, crowded basements and gloomy attics and

unsanitary yards and poorhouses and madhouses and penitentiaries. In these basements and attics babies are born who never see the blue sky or smell the fresh air, and mothers die who never touched the greenfields or walked in the silent forests. And this is civilization!

THE UNDERWORLD.

"The development of man has also produced the underworld; the spawn of the factory system, the spawn of the community; the parasites of society. The underworld, where boys are taught to be thieves and girls trained to walk the streets; the land of *dope* friends, degenerates, hags, harlots, pickpockets, paupers! those who prowl in the dark and flit like spectres in the grey of the morning. Those who sleep with their clothes on in bunks or rags, eaten with vermin, stupefied with stench; living in squalor, want, privation, wretchedness, filth and disease.

"In the region of the wretched, beyond the pale of law and the touch of charity, babies are strangled, the old are abandoned, the sick neglected, the weak maltreated, the insane tortured, the young polluted. In these crowded quarters of the lowly, women lie in confinement in the same room where thugs swear and gamble; the dying gasp and struggle while theives smoke and wrangle; children play and prattle while harlots drink and gabble. This underground community knows no class distinction, no nationality. All speak one language —the jargon of the gutter. All are peers—Chinamen, white women, girls, negroes, gypsies, Japs, Mexicans, sailors, tramps, fugitives, anarchists, gunmen, beggars, swindlers, smugglers."

It will thus be seen that mechanization coupled with rationalization[3] has landed the world in disaster. Thus we read: "The Government of the United States stands faced

3 The avowed purpose of rationalisation is the mobilization of the fighting forces of an industry against the attack of the foreign manufacturer.

with a budget deficit of 200,000,000 dollars. Production of automobiles, in October this year stood at 40 per cent. below that in October, 1930 and for the first ten months of the present year at 29 per cent. below the crisis year of 1930. In November automobile production was 80 per cent. below normal: 10 out of 29 factories were completely shut down. The export trade of the United States fell for the period—January to August from £681,000,000 in 1929 to £519,000,000 in 1930 and to £326,000,000 this year. The number of unemployed in the United States to-day is estimated to be already more than 10 millions. * * * *

"The madness of the capitalist order cannot better be illustrated than by the fact that in the midst of superfluity of raw materials millions of human beings are delivered up to misery and death by starvation—wheat is rotting, sugar is being destroyed, coffee thrown into sea, maize set fire to, cotton burnt and all the time millions of human beings are without the most indispensable food-stuffs and necessaries of life. The statement presents the picture as it is. The local daily—*Deutsche Allgemeine Zeitung* in a recent article, 'World Surplus of Twelve Million Tons of Wheat', gave out that in America wheat is being burnt under steam boilers. In Brazil, the greatest coffee producing country up to September this year 59,875,200 kilos of coffee were destroyed."—Berlin correspondent of *Liberty*, Jan. 7/32.

This overproduction—offspring of capitalism *cum* industrialism—has another moral aspect. In order to get rid of superflous products lying heavy on hand propaganda on a grand scale is started by means of advertisements including cinemas and movies—morbid tastes and appetites are created or pandered to among the simple, unsophisticated peasant folk; this sort of lying and demoralising propaganda is the source of infinite harm. Elsewhere I have drawn attention to the devices restorted to for popularising tea-drinking among the masses and its baneful consequences. Of late as tea is a slump in the European market the Tea Association is making frantic

efforts to popularise its use among the dumb multitude. What if fifty to sixty millions of them are in a chronic state of destitution and starvation and do not know the pleasures of a full stomach? Capitalism stops short at no mean trickeries and atrocious lies are being broadcasted to attract the unhappy victims to the spider's parlour. *Tea is a preventive of malaria; it is a safeguard against lungs complaints and so on.* Five years ago when I was in Germany I visited a big Chemical Factory. I was surprised to find the immense quantity of cocaine manufactured; several other factories including one or two in Japan were doing the same. A fraction of the world's output is not required for *bonafide* medicinal purposes. In spite of the recent laudable efforts of the League of Nations, illicit manufacture of this deleterious drug as also its smuggling goes on merrily. Capitalism is relentless and knows only how to line its pocket.[4]

Mrs. Hardy, wife of the great novelist and herself a writer of note, in the course of a speech on modern civilization observes:

"To many, civilisation is synonymous with material prosperity. To them the most highly civilised individuals are they who own a motor-car, who are on the telephone, and have facilities for listening nightly to wireless; they who are able to call to their aid a dozen mechanical inventions for adding to their so-called pleasures and saving their time. This, I take it, is the meaning of civilisation to the majority of people.

"Certainly it would be an act of sacrifice—perhaps an uncalled for act—for any individual to be heroic enough to dispense with all such mechanical aids and devices. Nevertheless

4 Cf. "The enormous effort expended to increase human needs artificially in order to maintain unemployment * * * * the increasing amount of human energy which has to be expended in persuading, bullying or intriguing the public to buy the latest products of industrial achievements".—Demant: *op. cit.* p. 135. Sir A. Salter and others also lay stress upon this "artificial stimulation of consumption" and the creation of new wants.—*The Causes of War*, p. 44.

when too highly regarded, they are injurious to the best development of humanity. The great danger of today is that life may become too mechanised in this age of machine.

"While considering the subject of this paper, my thoughts were irresistibly led to the teaching of Gandhi—Mahatma Gandhi, the Indian reformer, or revolutionary, as some might call him. He has a profound disrespect for the achievements of this age of machines, in their effect upon actual human happiness and advancement. His teaching is that the simpler life makes the purer spirit—which is, by the way, remarkably in accord with that of the Sermon on the Mount.

"He is not alone in this. I have heard from the lips of one of the profoundest thinkers of the younger generation the opinion that the only hope for civilisation is a return to a simpler life. He was an Englishman. The two men, so wide apart in their lives and outlook upon life, have yet the same ideal—a selfless purity of life and aim and thought, as complete as that taught by the Leader of Christianity".

Japan also began to imitate the West, with the result that she has become highly imperialistic. She has got her tight grip over Formosa and Korea and now she must needs have Manchuria. All the same world-wide trade slump has overtaken her and she keenly feels the pinch. The Tokyo correspondent of *Englishman* under date Oct. 9, 1931, writes:

"Forty years ago, Japan did not want work, so simple was the form of civilization that had been evolved in the past centuries. The people got along very well on a sweet potato, varied on holidays with rice, but once having been drawn into the maelstrom of the feverish Western industrial civilization, they departed further and further from the simple old practices —and now, they want work. They must work, or they starve. It was not always so."

This chapter was already in proof when my attention was drawn to Norman Angell and Harold Wright's *Can Government Cure Unemployment*? I can almost sum up the substance of this chapter by quoting the following extracts from it:—

"If you go into a certain mountain region of Vermont you may come upon the empty house and buildings of a large farm which has been simply abandoned by its owners. It could be acquired to-day at the cost of the small taxes due upon it. There are many such cases in New England and the Maritime Provinces of Canada. Yet once that abandoned soil supported in relative affluence a large family consisting of the parents, thirteen children, and two "poor relations." It supported them in comfort, though the tools they used to wrest their sustenance from nature were crude and primitive to the point of barbarism compared with the tools available for our use. Where we use steam and electricity, harvesters, tractors, separators, they used human muscle, the yoked oxen, the flail, and the scythe Yet they were all well fed, well clothed, well housed, well warmed. Want, in the physical sense, was unknown. The farm, much more remote than it is to-day, was practically self-sufficing. *

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" * * Why were the twentieth-century generation, with their superior tools, greater power over the forces of nature, and immensely greater productiveness less secure of livelihood —whatever other advantages they might enjoy—than their Vermont forbears with their all but barbaric equipment?

" What had happened was that producer and consumer were no longer one. The producer was no longer his own market, knowing exactly what that market required and would require. Co-ordinations of needs to be supplied and means of supplying them, of jobs needing to be done and workers to do them, which in Vermont had been completely under control, had, by the elaboration of the division of labour, got beyond control. When, in Vermont, wheat or maize was planted and harvested, the family knew, since it was mainly for their own consumption, that their labour would not be wasted ; that they could count upon its "sale" (to themselves) at a remunerative "price". But in the Dakotas, when ten years' savings were invested in planting some two or three thousand acres to wheat, with costly machinery to be paid for from the money proceeds,

something happening in Paris or Moscow or Buenos Aires might render the value of the crop less than the sum spent in harvesting and planting it. * * * The equilibrium necessary to ensure the remunerative value of his crops was utterly beyond the twentieth-century farmer's control."—*op. cit.*, pp. 4-7.

It is painful ; but it is a fact that things are going from bad to worse. As an American writer of repute says (1928) :—"We are obtaining more and better industrial equipment only at the price of a heavy investment in unemployment and human misery."

CHAPTER XXIII.

Economic Condition of Rural Bengal in the Sixties and onwards.

"For enquiries of this kind are not to be made in the bureaus of great cities; books and papers will not afford the information: a man must travel through the country, or must always remain ignorant, though surrounded by ten thousand volumes"—Arthur Young's *Travels*, vol. i., p. 317, ed. 1794.

In order to understand fully the significance of the economic conquest of Bengal dealt in a subsequent chapter it is necessary to take a glance at the state of the province in the early sixties of the last century and onwards.

Rice is the staple food in Bengal; even the illiterate labourer, when demanding an increase in his wages, refers to the market price of rice: "Sir, how can I afford to maintain a family of four on two annas a day, seeing that rice sells at one anna per seer?" Indeed when I was a boy, the monthly pay of a labourer was Rs. 3-8-0 to Rs. 4/- and rice used to sell at Rs. 1-8-0 per maund (82 lbs.).[1] The labourers in our district were, in the main, Moslems. They generally had a bigha or more of land on which paddy or vegetables were grown and their womenfolk used to eke out the family income by keeping goats and poultry. Fine brinjals used to sell at 20 for a pice (one farthing). A *punji* (Sanskrit *Punji*—a cluster) of big, (bloated) lobsters numbering nine could easily be bought for

1 Cf. *Nababi Amal* or the times of the Nababs by K. P. Bandopadhya, 2nd edition, p. 539.

Again: "In 1861 paddy sold at one *man* (maund) and at 36 sirs (seers) for the rupee, and rice at 26 sirs for the rupee. * * * On 30th January, 1875 the price of good rice in Barisal bazar was 17 sirs the rupee, and of inferior kinds 21 sirs for the rupee".—Beveridge: *Bakarganj*, p. 300.

one anna (a penny) ; chickens sold at 12 for a rupee ; the market price of pure milk was 32 seers to a rupee. Moreover, almost every family had a cowshed attached to the household as also a Dhenkisala (primitive machine for husking paddy) ; the husk, the bran, the small broken grains—all the by-products had their economic use.

Then again different kinds of pulse either grown on one's own land or purchased for the year's consumption were stored up in big earthen vessels. As for paddy (unhusked rice) not only the gentry but the husbandmen also would regard it as their first duty to garner it in granaries for the year's consumption as also for an additional year as a precaution against failure of crops.

Ghee (clarified butter)—pure and unadulterated, with a provokingly tempting flavour—could be easily had for 8 annas per seer. Adulterated "mill oil", imported in recent times from Calcutta, was unknown to the innocent villagers. Mustard seeds crushed in primitive oil presses operated by bullocks used to yield pure oil, which enters largely into the dietary of the Bengalis, was available in every village. The business in mustard oil was then a monopoly of Kalus by heredity ; the price of oil was about three annas a seer (2 lbs.) ; oil cake was an excellent food for cattle ; it was also used as a manure.

The tending of milch cows was a sort of religious duty with every Hindu. I still remember how my mother used to superintend personally the feeding of the cows of which there were various breeds. It was a rule with my parents that their children should be nourished chiefly on a milk diet till they were five years of age. Even ladies and gentlemen of rank did not disdain to cleanse the cowshed in the early morning and the sweepings constituted an excellent form of farm-yard manure.[2] The bran, the thin gruel of boiled rice and chips of the stem of *Kadali* (Musa Sapientum) were also regularly given to the cows. Then again every village republic had its own

[2] Cf. Cowper : "The cowdung yields a stercoraceous heap".

pasture land—"the common—"[3] where the cattle grazed at random. When the paddy was harvested an abundant supply of straw was also stocked to serve as additional cattle food, especially during the dry season when grass was scarce. In a word, every household was to a certain extent self-contained.

Soap was not then such a common article of toilet as now; its use was confined to refined society only. For washing purposes *sajimati* (impure carbonate of soda found as a deposit on the soil in certain districts in Upper India) was much in vogue. The poorer classes used to lixiviate the ashes of the leaves of *kadali* and boil their clothes in the solution adding a little lime to increase its causticity. A kind of impure ball soap was made at Dacca; the process of manufacture being evidently taught by the Portuguese who settled there in the sixteenth century. The Bengali and Hindi name for soap, namely *savan,* is evidently derived from the Portuguese *savon.*

The river-borne trade of Bengal was then carried in country boats of various descriptions, *Kos, Balam, Sodpuri;* and the passenger traffic by means of green boats; *Buzraws* were for well-to-do gentry and *Pansis* and *Tapuris* for ordinary people. Every village of importance had scores of them lying at anchor, discharging cargoes and the *bandars* and *ganjas* (ports and marts) were simply studded with them presenting a brisk and gala appearance. As we made journeys to and from Calcutta in boats of the above description we relished the trips immensely and it was an enjoyable sight to observe fleets

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3 In marked contrast with the above the following extract may be cited with advantage as throwing light upon the deterioration of cattle and the consequent milk famine.

"In most districts of Bengal, there is hardly any recognised common pasture ground. Owing to pressure of population, the landlords have settled all available cultivated lands with tenants and these are being fast reclaimed. * * * * In most villages the cattle are let loose on the fields and mango groves or banks of tanks from which they pick up what they can get. Fodder crops are practically unknown and are nowhere grown in Bengal purely as such". Momen's Evidence before *Agr. Com.*, vol. iv, p. 326.

of them progressing either propelled by rowers when the tides were favourable, or spreading their sails when the winds were propitious. All this is now almost a thing of the past, thanks to the inland steamers of the British Companies plying in the big rivers.

Beveridge in his *Bakargunj*, a district contiguous to Khulna, writing in 1876 thus gives the following account of the river boats and their construction:

"Perhaps one of the most skilled crafts in the district is boat-making. This is carried on at Debaikhali and Shampur in the Mendiganj thana where the best *kos* boats are made; at Ghanteswar near Agarpur, where the best *pansways* are made and at Barsakati in the Perozpur thana. At this last place very large cargo-boats are made. A few canoes are hollowed out of kerua wood by the Mugs in the Sundarbans and *dinghis* of sundari wood are made all over the district, but specially at Jhalakati. Kaliganj, Backerganj, Phalagar, are also boat-building places."—*op. cit.* p. 298. Thus, boat-making supported a large class.

In the days of my childhood, I never saw a *Charka* plying in any household; indeed, Manchester piece-goods had already entered the remotest villages and the *Jolas* and *Tantis* (weaving castes) had practically been driven out of their hereditary profession; some of them were eking out a miserable existence by selling *bilati* (foreign) piece-goods and others had been driven to the cultivation of patches of land, thus increasing congestion of the soil.

The village blacksmith was then an important personage.[4]

[4] Lal Behari Dey in his *Bengal Peasant Life* has given a vivid description of the smithy:

"Kuvera, however, and his son Nanda, are busy as in the day; for their toil knows no intermission except in the dead of night. It is true that the people who frequented their smithy during the day for little jobs are no longer there, but their place has been taken by friends who have come to enjoy an evening chat. But, friends or no friends, the father and son are never unmindful of their own business. Vulcan senior and junior have just taken out of the forge a large piece of iron, glowing and red-hot, have put it on the anvil, and are belabouring it with their hammers and scattering about particles of incandescent matter".

The smithy was a club house in the evenings where village politics were discussed. The smith still made the ploughshares, spades, daos, hinges for doors, big nails, locks, etc. These were of course made of imported iron ingots and sheets. Locks and padlocks were made at Natagoria (a few miles north of Calcutta) and at Domjur, Makardah, Barsgechia in the district of Howrah ; but this industry is almost in its death agony, thanks to the cheap imported articles of German make, at present flooding the country ; and Sheffield cutlery also was rapidly making headway ; indeed, razors and pen-knives were already of foreign make.

Next to rice, *gur* and sugar manufacture was the most important industry of Jessore. The date palm was the main source of *gur* (treacle and molasses) and sugar. The following account from Westland's *Jessore* (1871) may prove of interest in view of the impending ruin, nay total collapse, of the sugar industry in Bengal at the present time due to imported sugar from Java.

"Although sugar is manufactured to some extent all over the district (Jessore), the principal sugar country is the western part, which may be considered as included between these places :—Kotchandpur, Changacha, Jhinkergacha, Trimohini, Keshabpur, Jessore and Khajura; and these places are the principal marts for its production and export. There are two chief places to which export is made—to Calcutta and Nalchitti. Nalchitti is a place of great commercial importance in Backerganj; a sort of central station for the commerce of the eastern districts. The demand there is for "dhalua" (raw sugar) as it is for local consumption; and except from Kotchandpur itself, almost all the "dhalua" sugar produced in the district finds its way to Nalchitti or to Jalakati, which is near it. Kotchandpur also sends a good deal of "dhalua" sugar there, but most of its produce goes to supply the local demand in Calcutta, as it is favourably situated for land carriage to Calcutta. Calcutta has in fact two demands, namely, a demand for "dhalua" sugar for consumption in Calcutta and other places whither it sends the sugar and a demand for pucka (refined) sugar for export to Europe and other places. This last demand is met by Keshabpur, and by most of the other places in the southern half of the district. The former demand is, as stated, already met by Kotchandpur".

The following account of sugar as manufactured in Bengal about the year 1800 will prove highly interesting :

"A sudden rise in the price of sugar in Great Britain, partly caused by a failure in the crops of the West Indies, and partly by the increasing consumption of this article throughout Europe, was felt as a serious evil by the British nation. Their eyes were turned for relief towards Bengal, and not in vain. An immediate supply was obtained from this country; and the exportation of sugar from Bengal to Europe, which had commenced a few years earlier, still continues and will, it is hoped, be annually increased to meet the growing demand for it, and to benefit, in common with the West India islands, by the advanced price which it bears in the markets of Europe.

"From Benares to Rangpur, from the borders of Assam to those of Catac, there is scarcely a district in Bengal or its dependent provinces wherein the sugar-cane does not flourish. It thrives most especially in the provinces of Benares, Bihar, Rangpur, Birbhum, Burdwan, and Mednipur; it is successfully cultivated in all, and there seem to be no other bounds to the possible production of sugar in Bengal than the limits of the demand and consequent vend of it. The growth for home-consumption and for the inland-trade is vast, and it only needs encouragement to equal the demand of Europe also.

"It is cheaply produced and frugally manufactured. Raw sugar, prepared in a mode peculiar to India, but analogous to the process of making muscovado, costs less than five shillings sterling per cwt. An equal quantity of muscovado sugar might be here made at little more than this cost; whereas, in the British West Indies it cannot be afforded for six times that price. So great a disproportion will cease to appear surprising, when the relative circumstances of the two countries shall have been duly weighed and impartially considered. Agriculture is here conducted with most frugal simplicity. The necessaries of life are cheaper in India than in any other commercial country and cheaper in Bengal than in any other province of India. The simplest diet and most scanty clothing suffice to the peasant, and the price of labour is consequently low. Every implement used in tillage is proportionably cheap, and cattle are neither dear to the purchaser, nor expensive to the owner. The preparation of sugar is equally simple and devoid of expense. The manufacture is unencumbered with costly works. His dwelling is a straw-hut; his machinery and utensils, consist of a mill, constructed on the simplest plan, and a few earthern pots. In short, he requires little capital, and is fully rewarded with an inconsiderable advance on the first value of the cane". Colebrooke : *Remarks on the Husbandry and Internal Commerce of Bengal*, pp. 78-79.

The above was written a century and a third ago and now Bengal, which once supplied sugar to the world market, depends upon Java for its supply. The improved and scientific methods of agriculture have enabled Cuba and Java to flood the world market with sugar at a ridiculously low price. At present (1928-29) India exports from Java 15 to 16 crores worth of sugar, the major portion of which is consumed in Bengal.

Jute is now the most important crop of Bengal, especially of North and East Bengal. But in the sixties it was grown only in small quantities in the district of Jessore, just enough to supply the ordinary needs of the household, such as making ropes and gunny bags; and for this purpose hand-spinning was much in vogue. It was undertaken by the male members of even genteel families during spare moments. The market price of jute was Rs. 1-4-0 per maund. But a great revolution has been effected in the economy of rural Bengal by the ever-increasing cultivation of jute.

In certain districts of North Bengal (e.g. Rungpur) "the spinning and weaving of jute by hand was extensively practised for cordage and cloth for bedding, screens, garments of the poorer classes and many other domestic purposes. * * * In the early forties the cloth came to be exported from Calcutta to North America and the Bombay coast for cotton-packing but more extensively as bags for exporting sugar and other produce to all parts of the world".

Dr. Forbes Royle in his admirable work, *Fibrous Plants of India*, published in 1855, quotes from a Calcutta merchant named Henley, the following vivid picture of the native industry and the importance it had then acquired in supplying markets outside of India with hand-loom gunny cloth and bags:—

"The great trade and principal employment of jute is for the manufacture of gunny *chuts* or *chuttees*, *i.e.*, lengths suitable for making bags. This industry forms the grand domestic manufacture of all the populous eastern districts of Lower Bengal. It pervades all classes, and penetrates into every household. Men, women and children

find occupation therein. Boatmen in their spare moments, husbandmen, palankeen-carriers and domestic servants; everybody in fact, being Hindus—for Mussalmans spin cotton only—pass their leisure moments, distaff in hand, spinning gunny twists.

"Its preparation, together with the weaving into lengths, forms the never-failing resource of that most humble, patient, and despised of created beings, the Hindu widow, saved by law from the pyre, but condemned by opinion and custom for the remainder of her days, literally to sackcloth and ashes, and the lowest domestic drudgery in the very household, where once, perhaps, her will was law. This manufacture spares her from being a charge on her family—she can always earn her bread. Amongst these causes will be discerned the very low prices at which gunny manufactures are produced in Bengal, and which have attracted the demand of the whole commercial world. There is, perhaps, no other article so universally diffused over the globe as the Indian gunny bag." Wallace: *The Romance of Jute*, 2nd ed., pp. 2-3.

It will thus be seen that hand-woven jute was an important subsidiary industry. In 1850-51 gunny bags and cloth exported from Calcutta were valued at Rs. 2,159,782/-.

Owing to the miserable failure of the Bengalis in commercial pursuits and in business in general the huge profits from this agricultural produce, which now ranks only next to rice in Bengal, accrue to mill-owners, middlemen and speculators, belonging chiefly to the European, Armenian and Marwari communities.[5] An unwary foreign reader, at the first glance, may run away with the idea that the middleman's huge profit made from jute finds its way into the pockets of the Bengali. Nothing is farther from the fact. The managing agents of the jute-mills with the exception of 2 or 3 are all British firms, who enjoy the lion's share. It is again sometimes urged that the majority of the shareholders of the jute-mills are Indians. They are "Indians", no doubt, but practically non-Bengalis. It would however be idle to deny that a considerable portion of the money realised by the sale of jute finds its way into the pockets of the cultivators them-

[5] From enquiries made it appears that at least 25 per cent. of the ultimate price of jute, that is about 12½ crores, goes to the pockets of the interminable series of middlemen who infest the jute trade.

selves and this is borne out by indirect evidence, which cannot be lightly disposed of. Land, which was formerly exclusively used for sowing paddy, is now largely cultivated for the jute crop in the districts of Tippera, Mymensingh, Dacca, Pabna, Faridpur, etc., and every available acre is now eagerly sought for, for this purpose. This has unfortunately proved disastrous for cattle and supply of milk.

The economic effect of jute cultivation on the peasantry of Bengal is graphically described by Panandikar in his *Wealth and Welfare of the Bengal Delta,* a work which shows close study and observation :—

"The large increase in the area under jute and the opening of the world markets to the products of the delta, would have been an unmixed blessing to the people if they had been prudent and had utilised their profits in paying off their debts, and in improving their holdings, means of communication and standard of comfort. Their standard of comfort has no doubt increased a little, but a large part of the profits has been wasted away in litigation, in extravagance and in hiring outside labour unnecessarily. The profits have tended to make the cultivators gentlemen of leisure, wasting away their time in idleness. They have given up doing their own earth-work, cutting their own paddy and jute, steeping jute and handling and carrying away their own harvest and have been hiring for these purposes outside labour, mostly from Bihar and the United Provinces. This has increased considerably the demand for labour, and its wages, and the high cost of the labour, which formerly they used to perform themselves, has naturally increased the cost of cultivation to a substantial extent. A large part of the profits of the cultivators, thus, have disappeared into the hands of lawyers [due to litigation] and up-country labourers. Although the prices of the staples of export have now declined temporarily owing to general trade-depression, *the habits of idleness, once formed,* cannot easily be given up, and outside labour continues to be employed on a large scale. Had it not been for this increase in the cost of cultivation, the profits of the cultivators would have been larger than what they are at present, in spite of the fall in the prices of the staples".[6] *Op. cit.* p. 150.

It has been estimated that the total annual output of jute, based upon five years' average, is nearly four crores and

6 As regards "habits of idleness", cf. *ante* Renan, p. 374.

seventy five lakhs of maunds, which is exactly the population of Bengal. Hence it comes to one maund per head of population or rupees eight at the current price per year.[7] In this connection I desire to quote the observation that Sir D. M. Hamilton made in the course of one of his speeches in Calcutta in 1918. He said:—

"As the holder of a few jute mill shares I feel ashamed to look a jute grower in the face. That we should be raking in 100 per cent. dividends while he is on his beam ends for want of a banking organisation to tide him over his evil day, does not tally with British ideas of fair play. It hardly seems playing the game, and it "*maun press unco sair*" on the Dundee conscience. But what the jute growers are suffering from now is what the masses of India more or less suffer from, the day they take up life's burden till the day they lay it down. It is a condition of things that can be tolerated no longer, and it is not a credit to British rule that it has been tolerated so long. To expect that the people of India will ever be able to develop either their bodies or their souls when burdened with a 100 per cent. finance and tied to a millstone of debt is folly".

The phenomenal high price of jute in 1925-26 has, however, been followed by two successive years of abnormally low prices, with the result that the producers of jute have been hard hit. As jute has more or less supplanted the cultivation of rice, the peasants of East Bengal have to buy their food-stuff with money borrowed at usurious rates of interest varying from 25 to 37½%, their proverbial improvidence and thriftlessness not having taught them to provide against lean years.[8] Then again it has upset the mental equilibrium of the peasantry at least in East Bengal. The result has been that Sealdah goods-sheds as also the steamer-station at Jagannath Ghat (on

[7] At present (June, 1932) jute is selling in the countryside at the ridiculously low price of Rs. 2-8-0 per maund.

[8] Cf. "Generally speaking the ryot seems unable to save money even when he has the opportunity of doing so. In 1925, for instance, when jute prices were high and he had a chance of freeing himself from his debts, he did not take advantage of his opportunity but spent all the money he received"—*Royal Com. on Agr.*, vol. iv, p. 415. Indian Jute Mills Association Evidence.

the Strand) are choked with such articles as corrugated iron sheets, bicycles, gramophones, bales of piece-goods, shirtings, etc. The craze of the rustic for buying gaudy trinkets and gewgaws and gadgets knows no bounds and Japanese as also artificial silk *chadars* priced at Rs. 7/- each, which our middle class *Bhadralok* cannot dream of buying as too expensive an article of luxury, have flooded the market and are finding ready purchasers among the peasantry. Like children they jump at any tawdry that has an air of novelty. Electric torches of German make are having an extensive run even in the remote villages. Not knowing how to use them properly they throw them away as soon as the batteries inside are exhausted.

The peasantry as a class are steeped in utter ignorance ; their outlook, if they have such a thing at all, is very narrow ; in one respect they follow the precept of Christ "Let to-morrow take care of itself". They are proverbially improvident. They feel uncomfortable so long as they cannot get rid of their surplus stock of rice. The sight of the coveted *Bilati* articles enumerated above excite their eagerness to buy them. As the *Bepari* (dealer in jute, rice etc.) is always at hand, jingling cash in the purse, they cannot resist the temptation of parting with the produce of their fields. It often happens that in their craze for the purchase of these tempting stuffs, they even denude their graneries. Formerly as said above it was an article of faith with our husbandmen to keep in reserve at least a year's stock of food-grains over and above that required for the current year's consumption, in case there might be a failure of crop ; at present, I doubt very much if five per cent. of the peasants of Bengal have the foresight or the capacity to lay by the year's provisions for their families ; the rest are hopelessly involved in debt. They are in perpetual and chronic indebtedness both to the *Mahajan* (money-lender) and to the zemindar.

My account of village life in Bengal sixty years ago would not be of much value unless it is supplemented by a survey

of the rural life at the present day. Having travelled extensively in North, West and East Bengal during the last few years in response to the national upheaval of 1921-25 and in connection with the famine and flood relief operations in Khulna, Rajshahi and Bogra, I have had ample opportunity of studying at firsthand the present economic condition of Bengal.

Almost all the navigable rivers of East Bengal are now constantly ploughed by mail-steamers or Sunderban and Assam despatches carrying mails, passengers and immense loads of cargo ; there are also in many places railway services in connection with these. From Dacca or Barisal or Chittagong to Calcutta, the journey by boat often occupied a fortnight or more, whereas cargo boats took much longer time. Now-a-days these places are within easy reach. One can travel from Calcutta to Chittagong in 24 hours and to Dacca in 16 hours. A student of Economics not conversant with the deeper undercurrent of life in rural Bengal would exultingly cite the export and import trade returns as supplied by the Custom House and congratulate the province on its prosperous condition, forgetting all the while that there is a skeleton concealed in the cupboard.

In fact, our rulers are never tired of quoting figures in support of the continued prosperity of the people under British regime. It is often a shibboleth with the political economists that when—thanks to the easy and rapid means of transport and locomotion—people can secure higher prices for their commodities, they are bound to get richer. Thus they hold that the surplus produce of the soil can now be sold at an advantage.

As against this it is enough to quote here Darling—a high authority—who says :—"What is easily gained is easily spent ; consequently a great part of his (cultivator's) new wealth has slipped through his fingers into the pockets of others. In

thirty years debt has increased by fifty crores, and is still increasing".—*The Punjab Peasant*, p. 283.

Memon also says the same thing about the ever-increasing poverty of our peasantry inspite of their increased income:—

"It is a fact that 50 years ago, although ill-housed and ill-clad, the ryots of Jessore had no difficulty in getting two full meals, and though their income was small, their expenditure was less. They used to grow enough food-crops for their subsistence and did not care so much for ready money, to buy cheap luxuries as is the case now-a-days. Their income has now increased, but this increase is only nominal and not real, as 50 per cent. of them, who cannot sell any paddy at all except for the bare necessaries of life, do not get any benefit from the rise in prices of crops. On the other hand, they have got a higher standard of living and in consequence their expenditure has increased, and not being able to meet their wants with their income, they are gradually getting more and more into debt."—*Rep. Agr. Comm.*, iv, p. 328.

Mr. Darling estimates the total agricultural indebtedness of India at 600 crores of rupees. According to the Report of the Bengal Provincial Banking Enquiry Committee (1930-31) the rural indebtedness in Bengal alone amounts to Rs. 93 crores. The following extract from it will amply repay perusal.

"The moneylenders' rates of interest range from 5¼ per cent. to 300 per cent. The rates vary with the nature of the security and the amount of the loans and depend to some extent on the supply of loanable capital.

"Most of the loans bear compound interest and the usual rates are after 6 or 12 months. In some cases, the loans are compounded after 3 months.

"Usury is widely prevalent in every district in the province. This is due to various causes such as the low credit position of the borrower, the absence of suitable financing agencies, limited resources of the money-lenders, insufficiency of accommodation provided by co-operative societies and loan offices, and the predominance of tradition and custom among the borrowers, particularly in the backward places."

Much has been said about the improved transport system. That it has not been an unmixed blessing to the poor peasantry is proved beyond doubt. As Mr. Ramsay Macdonald says:—

"Railways have added to the difficulty and have widened the apparent famine area, * * * * * one firm alone sucks the sap of Indian life like a tropical sun, leaving dust and barrenness behind. * * * * A

week or two after harvest India's surplus wheat and rice have passed into the hands of dealers and when the next monsoon fails she starves."—*Awakening of India*, p. 165.

This is exactly what Mr. Horace Bell, once Consulting Engineer to the Government of India for State Railways, said in a paper read before the Society of Arts in 1901. As early as 1878 Sir George Campbell also pointed out :—

"Improved communications lead to the export of grain and a cessation of the old native habit of hoarding grain, which was formerly a a very great security against famine." Twenty years later, the Famine Commission of 1898 formally endorsed the same proposition, stating that "the export trade and the general improvement in the means of communication have tended to diminish the custom of storing grain, as a protection against failure of harvest, which used to be general among the agricultural classes."

It is thus evident that *famine in India has not been prevented by railways* and a system of railways, without collateral safeguards, cannot be an unmixed good, though a certain school of officials is never tired of repeating parrot-like that railway communication has made famine a thing of the past.[9]

Mr. Ramsay Macdonald is right in saying that railways have widened the famine area. Again formerly owing to the difficulties of communication the ryots and the villagers in general were contented with the rude and patriarchal justice which was locally dispensed. Now they avail themselves of railways, motor buses, and fast-going steamers to rush to subdivisions and district towns for purpose of litigation ; in Bengal, dozens of light railways and connecting steamer services wax fat at the expense of the litigants. Improved means of transport has thus conferred an additional blessing on the ryot!

It is indeed deplorable that the life and exuberance of

[9] In the official version, however, railways have banished famine! Cf. "Fortunately one of the grimmest of spectres, which formerly dogged the Indian agriculturist's footsteps, has now been laid. Famine is no longer the dread menace which it used to be—the railways, canals, and the greater ubiquity and resources generally of the Indian Government have seen to that."—Coatman : *"India in 1926-27."*

spirits that were abundantly found in the good old days have now disappeared from our village life. There was then joy of existence in our village-folks, such as is seen in birds and fishes. Young people used to participate in national games. On the occasion of the celebration of *Janmashtami* (birthday of Srikrishna), wrestling matches were held in which athletes took part. The *Amrita Bazar Patrika*, evidently with a vivid recollection of those days, thus graphically narrates the condition of a typical village :—

"Malaria, cholera and kalazar did not then work havoc on the countryside. Poverty, the causes of which are well known, did not make men emaciated or devoid of cheer and vitality. Young men almost from their cradle were not then made to groan under a heavy weight of books mostly written in a foreign tongue and a system of examinations conducted on lines that are anything but rational. There were *Akras* (Gymnasiums) in almost every village where men regularly practised wrestling, lathi play, sword play and archery, and learned various other feats of physical exercise; on at least two occasions every year, the Muharrum and Durga Puja, there were organised displays of physical strength. And men and women took the most intense delight in witnessing these performances. Our well-to-do countrymen now feel a special pleasure in spending their money on motor cars and dogs of foreign breed. But then the practice was quite different. The rich amongst the people considered it their duty to maintain good wrestlers and accomplished musicians. No wonder then that the arts of music and wrestling flourished in the important centres of wealth in those days; and musicians and wrestlers were looked upon with love and respect by the people."

"All these conditions are now unfortunately altered. Except in the Punjab and parts of the United Provinces *Palwans* are now neither found in large numbers nor treated with much consideration. The situation is especially bad in Bengal where there prevails a general impression that persons who practise lathi play are no better than "Goondas" while those who do "Don Baitak" and "Kusti" belong to the class of Durwans. It is thus only natural that the average people of the country should become so many weaklings, at the mercy of the first bully who takes it into his head to trespass on their right to person or to property."

Amongst our tenantry of the fishermen class, there used

to be one or two *Malkats*[10] and an open challenge was thrown to all and sundry to come and try their strength in lifting them up to a certain height. Every village could boast of at least one such Hercules who gave proof of his strength. On the approach of the spring and during the *Charak* festivals *Jatra*[11] parties were organised and any one with a modicum of musical talent was quite welcome to join them ; distinction of caste and creed seemed to be forgotten for a while. I well remember how un-lettered Moslem peasants were often requisitioned for the purpose. My father, himself an expert violinist, used on such occasions to extend his invitation to some select players ; those who in his judgment acquitted themselves creditably were allowed seats of honour in his drawing room where they displayed their skill ; and even now I can almost hear the rapturous notes of the strings. From time immemorial there used to be held, literally, as the Bengali saying goes, thirteen festivals in twelve months, and the celebrations of the great national festival—Durga Puja—are still vivid in my memory. What a thrilling sensation we felt as the days of the festival were drawing near ! Enormous quantities of sweets were prepared and lavishly distributed especially among our tenantry during the three days of the Puja and guests were fed sumptuously. Performances by the *Jatra* parties were held at night—theatres had not yet come into existence in the remote villages. The regattas in connection with the immersion ceremony were equally exciting and it was with a heavy heart and sad countenance that we returned home after the function. The poet born on the Kapatakshi must have had such feelings when he vented them in these memorable lines :

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10 Mallakastha (Sansk.)—A portion of the trunk of a tree sawn off with a handle driven into its middle.

11 Regarding "The Jatras" or the popular theatrical performances of Bengal the curious reader may consult a brochure by Nishikanta Chattopadhya, London (1882).

"विसर्जिया प्रतिमा शेष दशमीर दिने।" Oh! what a havoc time works in our mind! I feel with Wordsworth:—

There was a time when meadow, grove, and stream
The earth, and every common sight,
To me did seem
Apparelled in celestial light,
The glory and the freshness of a dream.

It is not now as it has been of yore;—
Turn wheresoe'er I may,
By night or day,
The things which I have seen I now can see no more!

* * * *

Whither is fled the visionary gleam?
Where is it now, the glory and the dream?

CHAPTER XXIV.

Economic condition of three Bengal Districts.

It would not only be tedious but out of place here if in studying the economic condition of rural Bengal I were to go into a detailed account of every one of the 28 districts of Bengal. I have therefore selected three representative districts —one in West Bengal (Bankura), one in East Bengal (Faridpur), and the other in North Bengal (Rungpur).

I. Bankura under British Rule or the Ruin of a Bengal District.

Excavation of tanks and cutting of canals for internal communications and erection of reservoirs for the storage of water for use during seasons of draught were a regular and recognised feature under the Hindu and Mahomedan rule. But with the establishment of British power in Bengal this vital factor in the economy and health of its people began to disappear. Colebrooke, writing forty years after the Battle of Plassey, observes, "reservoirs, ponds and water courses, dikes more generally in a progress of decay than improvement". This point may be well illustrated by studying the condition of Bankura from 1770 onwards.

The great famine of 1769-70 which swept away one-third of the population of Bengal spent its fury markedly on Bankura and its adjoining district Birbhum, which had already suffered heavily during the Marhatta depredations. Language fails to describe the horror it brought in its trail. "The ancient houses of Bengal, who had enjoyed a semi-independence under the Moguls and whom the British Government subsequently acknowledged as the lords of the soil fared worse. From the year 1770 the ruin of two-thirds of the old aristocracy of Lower Bengal dates,"[1] and yet the land revenue was exacted

1 Hunter : *Annals of Rural Bengal*, p. 61.

from the Zemindars and revenue farmers to the uttermost farthing. Lord Cornwallis after visiting some of the desolate lands pronounced in 1789: "The land remained untilled, * * * * * one-third of the Company's territories in Bengal to be a jungle inhabited only by wild beasts".[2]

It is on record that the Rajah of Birbhum was hardly permitted to pass the first year of his majority before being confined for arrears of revenue and the venerable Rajah of Bishnupur (Bankura), after weary years of duress, was let out of prison only to die.

Nor was this all. The Rajah of Bishnupur's descendants were gradually ruined and impoverished and the vast territories over which their ancestors once ruled with almost sovereign powers were one by one lopped off or sequestered and made over to new revenue farmers. In 1806 a considerable portion of it was purchased by the Maharaja of Burdwan. He in turn under Regulation VIII of 1819, enacted for his special benefit, granted 341 *Patnitaluks* (leases) fixing the rent in perpetuity at his discretion. The holders of the *Patnitaluks* called *Patnidars* again sub-let them in turn to under-tenure-holders of third degree (*darpatnidars*) and so on. The system which thus came into vogue has been the direful spring of woes unnumbered for Bankura as also in a lesser degree for other districts in Bengal.

The resident Rajah of Bishnupur held perpetual sway over his own tenantry. He constructed thousands of *bunds* in which the abundant, superfluous water of the monsoon season was stored up for use during the months or seasons of draught. Under the Permanent Settlement, the East India Company was converted into the greatest of absentee landlords ever seen in

2 "In the 18th century the family rapidly declined; the Marhattas impoverished them; the famine of 1770 left their kingdom empty of inhabitants; and the English treating these tributary princes as mere land-stewards, added to their public burdens at pleasure, and completed their ruin".—Hunter: *op. cit.* p. 446.

the world, with its proprietors or shareholders assured of the land revenue under the "Sun Set Law". The Zemindars under the Company were again assured of their share of the revenue from their under-tenure holders. It is said that everybody's business is nobody's business ; so the arrangements for irrigation constructed with admirable skill, wisdom and foresight were doomed to neglect.

Mr. G. S. Dutt, who as Magistrate and Collector of Bankura, tried his best to repair some of these old *bunds* with the help of locally started Co-operative Societies, says :—

> "The story of rural decay in Western Bengal is intimately bound up with the story of the decay of its irrigation tanks and bunds. Visit any district in Western Bengal and you will be impressed with the wisdom with which, to counteract the vagaries of rainfall and to conserve every precious drop of water falling from the sky or trickling down the soil, a past generation of benevolent landlords had provided the districts with a network of reservoirs for the storage of water of the monsoon rain and of the sub-soil drainage. * * * * * Nowhere was the system of irrigation tanks and *bunds* constructed with such systematic thoroughness and farseeing wisdom as one done in Bankura and the other parts of Western Bengal covered by the old land of Mallabhumi by its old benevolent landlords and by the Raja of Bishnupur who ruled over it. Nowhere again has the narrow selfishness, folly and suicidal blindness of subsequent generations conspired to bring this elaborate system of tanks and *bunds* on which the health, prosperity and the very life of the population depends, into such utter decay and destruction. * * * * * The larger *bunds* were supplied with inlet channels for the reception of the water of their catchment areas and with an elaborate and carefully worked out system of distributaries for serving the water to the lands protected by them. These tanks and *bunds*

not only supplied water to the field but furnished a sure and adequate supply of drinking water to men and cattle.

"Subsequent generations have proved themselves false to this rich heritage bequeathed to their health and agricultural prosperity. For year after year and decade after decade these precious reservoirs have been allowed to become silted up and converted into dry land and half-dry pools of stagnant dirty fluid ; their embankments have been allowed to fall into decay".

Then again in another place Mr. Dutt writes:—

"As a result Bankura to-day is a district of dead tanks, and large *bunds* which have either completely vanished out of recognition or of which only a fragment of an embankment here and there remains to indicate the evidence of their previous existence, or of their shrunk and mutilated remains in the form of shallow silted up pools of water.

"Thus, surprising as it may seem, comes the irresistible conclusion that in the district of Bankura famine and poverty, disease and crop failure, malaria and leprosy are all alike the direct consequences of the neglect, apathy and inaction which has allowed the old tanks and *bunds* of the district, numbering 30,000 to 40,000 on a moderate calculation, to fall into disrepair and decay".

Bengal being a permanently settled province, the Government is assured of the fixed land revenue and there is no chance of its being enhanced on account of the increased yield of the soil due to irrigation and hence it has been relegated to criminal neglect. The welfare and prosperity of the people do not count a feather's weight in the scale in the scheme of our beneficent Government. In marked contrast with this policy of *laissez-faire* is the policy of over-activity in this respect in the arid region of Sind. The Sukkur Barrage project which will irrigate a vast area is calculated to cost 20 crores. No doubt the scheme is expected to make an appreciable addition to the production of food supply (notably wheat), but

the policy underlying this colossal project is evidently the consideration that the new area to be brought under cultivation is eminently fitted for the cultivation of long-stapled cotton. Lancashire is anxious to be independent of America in this respect hence the tight grip over Sudan and the enormous expendfture of the Indian Tax payers' hard-earned money Here again Imperial considerations play a prominent part.

No one for a moment would maintain that the British Government has maliciously or of set purpose brought about the ruin of this fair district ; but my contention is that its *laissez-faire* policy is responsible for it. Mr. Dutt's diagnosis stops short at the root cause ; as a bureaucrat he naturally fails to place his finger on the right spot.

Our economic decadence has everywhere synchronised with British connection—with painful, unerring and fatal precision the ruin of this fair district has followed in the wake of the "White man's burden", like the withering blast that accompanies the flapping of a revengeful angel's wings. The connection between cause and effect can here be proved to demonstration.

Mr. Dutt quotes the following glowing account of what co-operation has done in America :—

> "Harold Powell, writing on co-operation in Agriculture, remarks on the striking fact that in the United States of America in 1919, of the total area of irrigated land, viz., nearly 14 million acres, no less than one-third was under co-operative enterprises and he goes on to observe : 'I believe it is safe to say that in no other industry in the United States is there so large a percentage of co-operation as in irrigation.' It is an interesting feature of co-operative irrigation in America full of rich significance to the people of the arid regions of Western Bengal and other parts of India that co-operative irrigation in America had its origin in the development of the arid wastes of the country of Utah which were more devoid of water than are the plateaus of Western Bengal or Behar to-day."

"It may be said that co-operation is the keystone of the development of Utah. The success which attended this form of organisation of water from streams spread to other industries. This is shown in the co-operative creameries, co-operative canneries and co-operative stores that abound in the State".

Mr. Dutt eloquently appeals to the inhabitants of Bankura to follow in the wake of the Utah colonists but he fails to lay his finger on the plague spot and reveals himself as an official of the deepest dye. He conveniently forgets that the colonists of Utah belong to the Anglo-Saxon stock amongst whom from the days of the Witenagemot the principle of self-government and self-reliance as also individualism had been fairly rooted. In India, on the other hand, whatever germ there was of self-help was destroyed when the old structure of village community was made short work of under the foreign regime.

I have laid above the misfortune and calamity of Bankura at the door of the permanent settlement with its interminable series of under-tenures. After the above was written I have come across the following passage in Sir W. Willcock's diagnosis of the situation :

"The permanent settlement of your land taxes, meant for the good of the peasantry, broke down your inherited power of co-operation, and the delicate machinery of your irrigation system stopped working and poverty and malaria took its place.—*The Restoration of the Ancient Irrigation of Bengal,* p. 24.

Again, this high authority says :—

"Bengal has poured millions upon millions of money into the common treasury of the whole of India, and, all this while, these two sub-provinces, between which has lain the seat of Government for 150 years, have become poorer and more unhealthy. True is the Indian saying that 'there is no darkness like that under the lamp'."

27

The necessity of irrigation and of providing the people of this country with cheap and abundant water was fully recognized by our Mahomedan rulers to whom another English writer has referred in the following terms:—

> "Will the unprejudiced historian deny that the Afghan Sovereign of that day (i.e. of the 14th century) was wiser in his generation, more philanthropical in his principles, more liberal in his plans and labours and more worthy of the love of his subjects and of the blessings of their children's children, than the body of the merchant princes, who satisfied with self-praise, have viewed with apathy, if not aversion, all plans for the improvement of India, and watched without shame the gradual decay of those wondrous monuments of industry and civilization, over whose destruction even time still lingers, that provided water for a parched up land, and converted arid wastes into some of the noblest provinces of the world. * * * * * * * * * * * * * *
>
> Those who carefully and without prejudice will examine the present condition of public works in India must acknowledge that the millions of India have more reason to bless the period of 39 years passed under the Afghan Feroze, than the century wasted under the vaunted influence of the Honourable East India Company's rule."—Quoted by B. D. Basu, *Welfare*, June 15, 1929.

Then again we find in a Government document:

> "The Sultan, perceiving that there was a great scarcity of water, resolved in his munificence to bring a supply of water to the cities of Hissar Firoza and Fath-abad. He accordingly conducted two streams (jui) into the city from two rivers; one from the Jumna, the other from the Sutlej. That from the Jumna was called Rajiwah, and the other Alaghkhani. Both these streams

were conducted through the vicinity of Karnal, and after a length of about eighty kos, discharged their waters by one channel into the town of (Hissar) . . . . Previous to this time . . . . the spring harvest failed, because wheat would not grow without water. After the canals had been dug, both harvests came to maturity. . . . . Numerous water courses were brought into these places, and an extent of from eighty to ninety kos in these districts was brought under cultivation.[3]

"The Rohtak canal derives its origin from the first attempt of Ali Mardan Khan to divert water from the old channel constructed for the irrigation of the hunting ground of Hissar Firoza (Firozabad) to the city of Delhi, which occurred about 1643 A. D. seeking to avail himself of the former line as far as possible, the great engineer took his canal out of that dug 250 years before him at Joshi and followed the natural depression of Nai *nadi* Gohana." *Rohtak District Gazetteer*, 1884, p. 3.

The above almost reads like a romance. Verily, our enlightened Government which boasts of engineers trained at Cooper's Hill and latterly at the British Universities' Faculties of Engineering has yet much to learn from Mahomedan rulers of the 14th century.

So much for irrigation. Now the cup of misery of this doomed district has been filled to the brim. The reeling of thread from cocoons as also weaving it into cloth of various descriptions found occupation for thousands ; the brass and bell-metal industry, again, also gave employment to a numerous

3 Cf. also : "In the summer in Lombardy rain is rare beyond the lower Alps, but a system of irrigation unsurpassed in Europe, and dating from the middle ages, prevails, so that a failure of the crops is hardly possible".

class of *Kansaris*. Both the industries are now on the point of extinction.

Silk cloth industry is perhaps the most prominent industry in the District of Bankura. Hundreds of families live upon the earnings of silk looms. Red, yellow, blue, violet and green silk sarees and marriage 'jors' are manufactured by the weavers of Bishnupur, Sonamukhy and Birsingha. These silk clothes are sent out to various places of India by the local Mahajans. These sarees and 'jors' are largely used by the middle class people on the occasion of marriages. Five or six years ago each family of weavers used to earn from Rs. 2 to Rs. 3 per day in one loom. A few months after the British Empire Exhibition the price of the Bishnupur silk cloth began to decline. The price of the raw-materials such as silk thread, *jari*, etc. remained as before. The price of silk clothes went on declining till it has come down to such a low level that the weavers have been compelled in many cases to give up weaving clothes.

"So far no earnest effort has been made either by the leading people or the Government to enquire into the real cause of such a disastrous condition. Bishnupur is an industrial town. The bulk of the population of this town are weavers, black-smiths and *sankaries*. The weavers are extremely distressed and the black-smiths have also been badly hit.

"The brass industry is extremely dull. It is said that the decline of this industry is due to the import of aluminium and enamel utensils ; this industry has no chance of further revival.

"The old town of Bishnupur being thus deprived of two primary industries has become miserably poor and the people who have been affected are gradually leaving this place and going to some other towns. Seventy per cent.

of the population of the town are suffering from the decline of her trade."[4]

II. Faridpur—Food Deficit in Bengal.

I have given above the condition of a district that is arid and parched up except during the monsoon season and where the monsoon rains often fail. In marked contrast with it I shall now present a district in the deltaic region, which is especially favoured by Nature ; where during the annual inundations a deposit of silt takes place, which serves as rich fertiliser. There is another valid reason for choosing Faridpur for our study as I have travelled in this district on several occasions and have come to close quarters with the condition of the people. One important fact should be borne in mind, namely, that throughout Bengal agricultural produce is the only source of income ; the secondary or subsidiary occupations, which up till the seventies of the last century, used to find employment for a large section of the community, are now practically all gone. Weaving is fast disappearing, and big country boats, which formerly were the main vehicles for river-carriage, have been supplanted by steamers of foreign companies. The weavers (chiefly *jolas*) and boatmen having had their bread snatched away from their mouths have taken to the land, thus increasing the pressure on it.[5]

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4 *Vide* Correspondence, *A. B. Patrika*, July 5, 1928.

5 "Weaving, which used to be a vigorous industry has been killed partly by the importing of foreign factory-made cotton goods." Jack : *The Economic Life of a Bengal District*, p. 82.

Also : "The district is well served by steamers, which ply along the great boundary rivers, the Padma, Meghna and Madhumati, and also along some of the interior rivers." O'Malley : *Faridpur* (1925), p. 83.

"Fishing supports 47,000 persons, a figure which includes those returned as fish vendors as well as those who catch fish. * * * * * * * * * * The great bulk of the district trade is in agricultural produce."—*op. cit.*, pp. 78-79.

Below is presented in a tabular form the total agricultural wealth of the district as compiled from the latest reports:

AGRICULTURAL WEALTH OF FARIDPUR.[6]

Name of crop.	Area of land in acres.	Outturn per acre md. s. ch.	Total outturn in mds.	Rate per md. Rs. a.	Total price Rs.
Autumn Rice ...	2,39,300	10 30 0	2,572,475	6 13	1,75,24,985
Winter Rice ...	7,59,900	12 20 0	9,498,750	7 4	6,88,65,937
Boro Rice ...	14,400	14 0 0	201,600	4 0	8,06,400
Wheat	2,700	8 30 0	23,625	4 14	1,15,171
Barley	11,700	10 30 0	125,775	3 6	4,24,490
Millet	*nil.*	.....	.....	.....	.....
Bazra	*nil.*	.....	.....	.....	.....
Maize	*nil.*	.....	.....	.....	.....
Gram	3,500	9 30 0	34,125	4 8	1,53,562
Pulses	1,01,200	10 30 0	1,087,900	4 0	43,51,600
Linseed	6,000	5 30 0	34,500	7 0	2,41,500
Sesame	11,200	6 0 0	67,200	6 0	4,03,200
Rape & Mustard ...	24,600	6 0 0	147,600	7 2	10,51,650
Spices	28,300	.....	per acre	25 0	7,07,500
Gur	7,400	37 0 0	273,800	9 7	25,83,987
Jute	2,11,700	16 10 10	3,422,262	9 6	3,20,83,713
Cotton	*nil.*	.....	.....	.....	.....
Tobacco	4,400	6 0 0	26,400	18 0	4,90,050
Fruits & Vegetables	62,200	.....	per acre	15 0	9,33,000
			Total ...	Rs.	13,07,36,745

It will be seen from the above table that the average annual income of Faridpur works out at Rs. 57 to 58, population being 22½ lakhs. Jack and O'Malley, taking all classes together, calculate the average income per head at Rs. 52/- the average debt at Rs. 11/-, and the average taxation at

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6 The calculation is based upon the average of five years' prices current, *i.e.*, from 1924-25 to 1928-29.

I avail myself of this opportunity to express my cordial thanks to Mr. Devendra Nath Mitra, Agricultural Officer in charge of Faridpur Farm. He has with unfailing courtesy assisted me with necessary information on agricultural products. The above table, in fact, was drawn up by him at my request.

Rs. 2¾.[7] According to Jack, the population engaged in industry amounts altogether only to 8 per cent. of the total, and of this small proportion not one in three could by any stretching of the term be described as skilled. The great majority of unskilled labourers work as porters, or on earth-work on the roads or the numerous ponds. They earn good money, at busy times as much as one rupee a day and generally between 15 and 20 rupees a month. But the "busy" times consist of barely 2 months a year. It is only during the sowing and harvesting of crops that there is a demand of labour. It is true that a few clerks or lawyers belonging generally to the *Bhadralog* class earn some extra money, but they are generally non-resident. On the other hand, the owners of the large estates are absentees and the income amounting to several lakhs is drained away to Calcutta.[8] It will also be seen that Faridpur is a district which is not self-supporting as far as its staple food-crop is concerned. This in itself is not a matter for serious reflection. In fact, as far as the jute-producing districts are concerned, it may be even a healthy sign because with the aid of their surplus wealth they can well afford to buy rice from Bakarganj, Khulna, etc. But when we take into consideration the total yield of rice in Bengal, the astounding fact stares us in the face that this province, which is supposed to be one of the richest in India, suffers from food-deficit. Thus the total outturn of rice (husked paddy), amounts to 277,376,702 mds. According to the Famine Commission's Report, 7 mds.

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7 As the five years (1924-29) represent the high water-mark in the price of jute, the income is necessarily higher than that given by Jack; otherwise it would have come up to a nearer approximation of his figure. The present year (1932) has the lowest record for the price of jute, rice and other agricultural products known during the last decade and if it be calculated at the current price ruling in the market, the average income will be reduced considerably, in fact less than halved.

8 All the big estates are owned by absentee zemindars resident in Calcutta. Below is appended a list of some of the big zemindaris: Telihati Amirabad, 72,000 acres; Haveli, 60,900 acres; Kotalipara, 34,600 acres; Idilpur, 33,200 acres. (Cf. Chap. II).

per head per year is required for average consumption. The population of Bengal is 45,701,089. Therefore the total amount of rice required for feeding Bengal is 320,541,823 mds. We have thus a deficit of 43,165,121 mds. or nearly *one maund per head per year* or the daily ration comes to ¾ seers.[9]

It may at first sight seem paradoxical that one of the most fertile of districts should have such a low income per head. The explanation lies in the high degree of its density, the soil supporting 949 persons to the square mile. Next to Howrah (1,882 to the square mile), Dacca (1,148) and Tippera (972), Faridpur is the most thickly populated district in Bengal ; and if only

9 These figures are based upon the report issued by the Agricultural Department as stated above. The total outturn of paddy has been calculated by adding up the yield, district by district. The statistics fully bear out Latif's contention (*Economic Aspect of the Indian Rice Export Trade*, 1923), "that the total produce of rice is not sufficient to meet the requirements of the people." Latif calculates that the total quantity of rice required for consumption in India is 33·51 millions of tons; whereas the yield is only 32·02 million tons. There is thus a deficit of a million and a half tons. "It seems therefore that but for the relief which Burma rice gives to the people of India, the consequences would have been disastrous" (*op. cit.*, pp. 13-14).

Panandikar says that "with regard to rice, it has been found that half a seer per day for an adult male and a little less for an adult female or a child is enough to prevent starvation * * * although the amount does not suffice to give the (family) members adequate nourishment for the purpose of possessing full strength and vigour." (*op. cit.*, pp. 164-65).

Banerjea (*Fiscal Policy in India*, pp. 198-199) says : "It is open to doubt whether there is, in a normal year, any exportable surplus of food-grains in the country. Some persons, whose opinions are entitled to weight, hold that the total production of food in India is not sufficient for her own consumption, and if everybody were to be adequately fed, she would be a food importing, not exporting, country".

Cf. also : "The net available cereal supply in India amounts to 48·7 million tons against the total cereal requirements of 81 million tons odd. This means a deficit in food supply only of 40 p.c. From the above figure we are driven to the obvious and unavoidable conclusion that the Indian people are underfed."—C. N. Zutshi : *Modern Review*, Sep., 1927, p. 265.

The independent and concurrent evidence of all the writers on this subject is that not only Bengal but India as a whole suffers from food-shortage.

the cultivated area is taken into account, the density rises to the high figure of 1,202 (persons) per square mile. Mr. Thomson, Superintendent of Census Operations in Bengal in 1921, is indeed of opinion that the district must shortly reach a condition in which there will be little margin for further pressure on the soil. "The standard of living of agricultural population in the Western countries has been adjusted to a density of not more than 250 persons per square mile. The surplus population has been drawn off into industrial and commercial pursuits. * * * * * But the agriculture in the delta has to support from three to four times this number per square mile. * * * Moreover, the delta has to support not merely the natural increase in its population, but also the excess of the immigrant over the emigrant population, which although small, has shown a tendency to increase in recent years. * * * Immigration into the delta from the U. P. and Bihar and Orissa where the pressure of population is heavier and its economic condition somewhat worse, takes place on a large scale, amounting to nearly ½ million during each of the decades 1901-11 and 1911-21." (Panandikar: *op. cit.* pp. 224-225).

The pressure on the land is multiplied. Fragmentation of holdings is an evil attendant upon the pressure on the land. In most of the districts in Bengal the average size of a holding is about 2.2 acres. The Hindu law of inheritance favours the equal division of property among the heirs (and the Mahomedan law more so) and this leads again to division and subdivision of the small holdings, so much so that the size is often reduced to less than half an acre. For the sake of comparison the size of the average agricultural holding in some of the foreign countries is given below:—

England	...	...	62.0	acres.
Germany	...	...	21.5	,,
France	...	...	20.25	,,
Denmark	...	...	40.0	,,
Belgium	...	...	14.5	,,
Holland	...	...	26.0	,,
U. S. A.	...	...	148.0	,,
Japan	...	...	3.0	,,
China	...	...	3.25	,,

III. Economic Condition of Rungpur.

Mr. Pramathanath Maitra, assistant manager, Tajhat Raj, drew up in 1919 a brief report on the industries of this district. The burden of it is the decline or the ruin of almost all the indigenous industries with the result that "the pressure on agriculture is increasing day by day". The following extracts from the Report tell a doleful tale:—

"All the industries of Rungpur are handicraft industries. Almost all of them are dwindling away except the sacking and the gur manufacture. The industries were mainly supported by the local people, the nearest markets being the only places where the manufacturers used to take them. With the importation of foreign articles of cheap price the manufacturers do not find their industries lucrative and most of them have taken to agriculture, though they carry on such industries on a small scale in their leisure hours and mainly on orders. The *satranchies* (a kind of carpet) of Rungpur were known all over Bengal but railway communication having been established between different parts of the country, the Behar and U. P. *satranchies*, which are of inferior quality and cheap price, have almost driven the Rungpur *satranchies* out of market."

"The chat (gunny) Industry:—The chats were and are prepared by the womenfolk of the district. They themselves make fine ropes from jutes and weave chat with them. Formerly the chats were in great demand. When the standard of living was very low among the cultivators they used these chats as night-cover during winter. Two or three stitched together serve the purpose of an ordinary quilt in keeping the body warm. The cheap foreign blankets have been steadily replacing them.

"Endi (coarse silk) Industry:—This industry is fast dying out.

"The Cotton-weaving Industry:—This industry has become almost extinct.

"Kansa (bell-metal) Industry:—This industry was

mainly confined to the easternmost portion of the district. The industry has almost died out.

"Sugar and Gur Industry :—Years ago Rungpur was one of the principal sugar supplying districts in Bengal. Relics of sugar factories can still be seen but in such factories machinery was never used. Sugar is now manufactured on a very small scale and it is used by the local people only during the religious ceremonies. The importation of cheap foreign sugar killed this industry.

"Rungpur with a population of 23 lakhs of people is principally an agricultural district. Annual agricultural wealth is estimated by Mr. J. N. Gupta, M.A., I.C.S., Commissioner, as nine half crores of rupees or 950 lakhs of rupees : the annual income per head of population thus amounts in round number to Rs. 40/- or Rs. 3 as. 6 per month or one anna nine pies, i.e. 2d. per day.

"The pressure on agriculture is increasing day by day and industrial development is urgently needed to relieve the pressure, otherwise petty factious litigations in connection with land disputes will be of frequent occurrence."

In Bengal the State (i.e. the foreign rule) has done its level best to strangle every cottage industry out of existence so that machine-made substitutes from "home" may be dumped on the peasantry. Japan, on the other hand, sets a noble example by encouraging subsidiary cottage industry. (*Vide* Allen : *Japan*, p. 122).

From the account given above it would appear that the peasantry are by no means better off in spite of many "scientific" improvements and the opening up of remote districts and villages by means of railways and inland steamers under a civilized but foreign rule. Mr. Ramsay Macdonald with the vision of a statesman could correctly gauge the situation when he said that it was a case of the "West blundering in the East". Ideas borrowed from Adam Smith and Ricardo when forced upon a primitive people often lead to disasters. Such has become the unfortunate lot of our poor peasantry.

CHAPTER XXV.

BENGAL—THE MILCH COW.

DRAIN OF THE WEALTH OF BENGAL DUE TO POLITICAL SUBJECTION.

"Bengal from the very first seems to have been the *milch cow* from which the other provinces drew their support".—*W. W. Hunter.*

I. BENGAL—A CREDITOR COUNTRY.

It is a remarkable fact that even in the palmy days of the Moghol Emperors Bengal scarcely paid its way ; her military expenses had often to be met by drawing upon the resources of the other *subas*. The discerning eye of Aurangzeb was not slow to discover in Murshid Kuli Khan financial abilities of a high order and he was sent to Bengal as Dewan, *i.e.*, head of the revenue administration, in 1702. Under the able management of Murshid the revenue of Bengal soon amounted to a crore of rupees. Aurangzeb was now sorely in need of money to conduct his gigantic scheme of conquest in the Deccan and the Dewan was not slow to ingratiate himself with the Emperor and fortify his position by means of timely remittances to the imperial coffers. When Sultan Azimusan, the titular subadar of Bengal, was on his way to Delhi, he heard of his grandfather's death (1707) and the revenue of Bengal to the extent of a core of rupees fell into his hands; this amount evidently represents the annual tribute to Delhi.[1]

1 According to Stewart the revenues of Bengal in 1722 under the rule of Murshid Kuli Khan were increased to one crore and thirty one lakhs or £1,780,000 in round numbers. Deducting for the expenses of the government the net revenue will exceed a crore of rupees. Ascoli puts down the revenue roll at Rs. 1,42,88,286; this gives the revenue of Bengal proper only.

Mandeville, writing in 1750, states that the payment of the Emperor's revenue sweeps away almost all the silver, coined or uncoined, which comes into Bengal. It goes to Delhi, from whence it never returns to (Lower) Bengal; so that after such treasure is gone from 'Muxadabad' (Murshidabad), there is hardly currency enough left in Bengal to carry on any trade, or even to go to market for provisions and necessaries of life, till the next shipping to bring a fresh supply of silver.[2]

The wealth plundered by the Marhattas during their depredations from 1740 to 1750 and the exaction of the *chouth*, must have amounted to several crores. According to Seir Mutaqherin, in the first invasion of the Marhattas, and when Murshidabad was not yet surrounded by walls, Mirhabib with a party of their best horse, having found means to fall upon that city before Aliverdi could come up, carried from Jagat Seth's house two crores of rupees in Arcot coin only and this prodigious sum did not affect the two brothers, more than if it had been two trusses of straw. They continued to give afterwards to the Government, as they had done before, bills of exchange called *dursannies* (*i.e.*, payment at sight) of one crore at a time."

Previous to the battle of Plassey—the great landmark in the history of Bengal—the exactions and loots were more or less spasmodic and the people recovered from their shocks after a

2 Mandeville, however, failed to realise that the wealth *apparently* drained away to Delhi flowed back to the provinces in some shape or other. Catron, however, in his *General History of the Mogul Empire*, (1708), truly diagnoses the real situation : "Doubtless", remarks he, "such prodigious wealth is amazing but it must be remembered that all these riches only enter the Mogul treasury to go out again, at least in part, every year, and flow again over the land. Half the empire subsists on the bounty of the Emperor or at least is in his keep. Besides, the multitude of peasantry, who toil only for the sovereign, are supported at his cost, and almost all the artisans of the towns, who are made to work for the Mogul are paid out of the royal exchequer".

Cf. also "It makes all the difference whether so many lakhs a year should be spent in luxury in London or in luxury in Murshidabad"—Torrens : *Empire in Asia*, p. 187.

time; but the persistent systematic drain of wealth, to which this unhappy province was now subjected, impoverished her beyond the powers of recuperation. After the battle of Plassey, the East India Company as the virtual masters of the situation, like the Pretorian Guards of Rome, sold the *masnad* of Bengal to the highest bidders. According to the Third Report of the Select Committee of the House of Commons (1773) it would appear that during the period 1757-1765 the Warwicks, by making and unmaking Nawabs in Bengal, brought to the Company and their own pockets no less a sum than five to six crores of rupees; a substantial part of this wealth found its way to England in some form or other.[3]

This constituted, however, the least part of the evil. On the acquisition of the Dewani from the titular Emperor of Delhi in 1765, the Company became the *real and legal* rulers of Bengal. The net revenue of the province, after deducting the tribute to the Great Mogul (26 lakhs), allowance to the Nawab, and the charges of collection, began to be utilised as "Investments."

The holders of East India stock, nay the British Government itself, demanded a share of the territorial revenues of Bengal. Most of this surplus money thus received was used for purchasing articles of exports, in exchange of which Bengal received nothing.

A concrete example will make the point clear. Even as late as 1786 "the realisation of the revenue formed the Collector's permanent duty, and on his success in this respect rather than on the prosperity of the people, his reputation as an officer depended."[4] The net revenue of the districts (Birbhum and Bishnupur) exceeded £100,000 sterling and the expenses of the Government seldom amounted to £5,000 ; of the remaining £95,000, part was remitted to Calcutta or to other treasuries and part was retained to carry on the Company's manufactures in the districts.

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3 *Vide* Sinha's *Econ. Annals*, p. 41.

4 Hunter : *Annals of Rural Bengal*, ed. 1897, pp. 268-87.

What the "Investment" was and what it led to is fully explained in the Ninth Report of the Select Committee of the House of Commons (1783):—

"A certain portion of the *revenues of Bengal* has been for many years set apart in the purchase of goods for exportation to England, and this is called the Investment. The greatness of this Investment has been the standard by which the merit of the Company's principal servants has been too generally estimated; and this main cause of the impoverishment of India has been generally taken as a measure of its wealth and prosperity. Numerous fleets of large ships, loaded with the most valuable commodities of the East, annually arriving in England in a constant and increasing succession, imposed upon the public eye, and naturally gave rise to an opinion of the happy condition and growing opulence of a country whose surplus productions occupied so vast a space in the commercial world. This export from India seemed to imply also a reciprocal supply, by which the trading capital employed in those productions was continually strengthened and enlarged. But the payment of a *tribute*, and not a *beneficial* commerce, to that country, wore this specious and delusive appearance."

It is immaterial as far as Bengal is concerned, whether the wealth of Bengal found its way direct to England or through circumlocutory channels. As Hunter says:—

"The East India Company itself, in its mercantile capacity, carried a quarter of a million sterling per annum out of Bengal to China; Madras constantly required specie from Bengal to purchase its investment; and Bombay, which did not pay the expense of Government, had to be supplied from the same source. The council constantly complain that while no currency existed with which to carry on internal commerce, the exportation of silver went on upon an unprecedented scale." *op. cit.* p. 303.

In 1780 Sir Eyre Coote the Commander-in-Chief writing to the Governor-General and his Council informed:—

"The treasury of Madras was empty, and that the immediate needs at Fort St. George would exceed 7 lakhs of rupees per month, every *cowrie of which must come from Bengal* as he found there were no resources from which a single pagoda could be expected." In a letter written in 1792 to the India House, the Commander-in-Chief pointed out that, "Both the army and the inhabitants in the state, in which the country then was, had to be maintained chiefly by supplies from Bengal."

Again :

"The Calcutta exchequer had been emptied to carry on the Marhatta war * * * * In the end of 1790, the war with Tipu had drained the Company's treasure chests".5—Hunter : *op. cit.*, p. 238.

Wars on a more formidable scale were launched by Lord Wellesley resulting in the crushing and final overthrow of the Marhatta confederacy ; but the sinews of war were supplied by Bengal. From time immemorial up till the battle of Plassey, *Bengal was a creditor country.*

II. Plassey Drain.

In the beginning of this chapter reference has been made to the drain of wealth to Delhi, but there is an immense difference between this drain and the perpetual, incessant economic drain of wealth to England known as "Plassey Drain."

"During the period 1708-1756, bullion formed 74 p. c. of the English Company's total imports of Bengal and it amounted to £6,406,023. The trade of Bengal, both inland and foreign, exclusive of the commerce of the European companies, was also very flourishing during the first half of the eighteenth century. The Hindu, Armenian and Mahomedan merchants carried on a brisk trade with other parts of India and with Turkey, Arabia and Persia." (Sinha).

Then in 1783 Edmund Burke in his memorable speech on Fox's East India Bill drew a vivid picture of the exhaustion of India's (practically Bengal's) wealth due to the "Plassey Drain" :—

"The Asiatic conquerors very soon abated of their ferocity, because they made the conquered country their own. They rose or fell with the rise and fall of the territory they lived in. Fathers there deposited the hopes of their posterity; the children there beheld the monuments of their fathers. Here their lot was finally cast; and it is the normal wish of all that their lot should not be cast in bad land. Poverty, sterility,

5 Even as early as 1758 the depletion of the Bengal Exchequer had begun for the wars of the Deccan; thus we read "He (Clive) therefore supplied it (the Government) most liberally from his own full treasury". Again, "The Government of Bengal had not only assisted Madras with money etc."—Marshman : *History of India*, ed. 1867, pp. 283, 328.

and desolation are not a recreating prospect to the eye of man and there are very few who can bear to grow old among the curses of a whole people. If their passion or avarice drove the Tartar lords to acts of rapacity or tyranny, there was time enough, even in the short life of man, to bring round the ill effects of the abuse of power upon the power itself. If hoards were made by violence and tyranny, they were still domestic hoards, and domestic profusion, or the rapine of a more powerful and prodigal hand, restored them to the people. With many disorders, and with few political checks upon power, nature had still fair play, the sources of acquisition were not dried up, and therefore the trade, the manufactures and the commerce of the country flourished. Even avarice and usury itself operated both for the preservation and the employment of national wealth. The husbandman and manufacturer paid heavy interest, but then they augmented the fund from whence they were again to borrow. Their resources were dearly bought, but they were sure, and the general stock of the community grew by the general effect.

"But under the English Government all this order is reversed. The Tartar invasion was mischievous, *but it is our protection that destroys India.* (Italics are mine). It was their enmity, but it is our friendship. Our conquest there, after twenty years, [I may say after 175 years] is as crude as it was the first day. The natives scarcely know what it is to see the grey head of an Englishman; young men, boys almost, govern them without society and without sympathy with the natives. They have no more social habits with the people than if they still resided in England; nor, indeed, any species of intercourse but that which is necessary to making a sudden fortune, with a view to a remote settlement. Animated with all the avarice of age, and all the impetuosity of youth, they roll in one after another; wave after wave, and there is nothing before the eyes of the natives but an endless, hopeless prospect of new flights of birds of prey and passage, with appetites continually renewing for a food that is wasting. *Every rupee of profit made by an Englishman is lost for ever to India."* (Italics are mine).

Huge fortunes were accumulated by the Company's servants, who on their retirement were anxious to dispaly their ill-gotten wealth. They lived luxurious and ostentatious lives. The literature of the day is full of biting sarcasm on

the " Indian Nabobs"—Burke's "Birds of prey and passage," who—

" Rich in the gems of India's gaudy zone
And plunder, piled from kingdoms not their own,
* * * * *
Could stamp disgrace on man's polluted name,
And barter, with their gold, eternal shame."

The total drain to England during the period 1757 to 1780, often named the "Plassey Drain," is put down at 38 million pounds sterling. " Even if it was a few million pounds less, it must have been a very heavy burden on the people of Bengal, —much heavier at that time than it would be at the present day, because the purchasing power of the rupee was then at least five times as high."[6]

Lord Clive, in his evidence before the Parliamentary Committee, 1766, observed :—

"The city of Murshidabad is as extensive, populous and rich as the city of London ; with this difference that there are individuals in the first possessing infinitely greater property than any of the last city."

But within a quarter of a century the very same Murshidabad resembled a sucked orange and presented a scene of ruin and desolation, thanks to the "Plassey Drain".

Dean Inge with his characteristic brutal frankness observes :—

" The first impetus was given by the plunder of Bengal, which after the victories of Clive, flowed into the country in a broad stream for about thirty years. This ill-gotten wealth played the same part in stimulating English industries as the 'five milliards,' extorted from France, did for Germany after 1870."—*Outspoken Essays* : p. 91.

The annexation of Upper Burma in 1886 also tells the same tale. For twenty years its administration did not pay its way

6 Sinha, *op. cit.*, p. 52.

and it lived all this time on the extorted bounty of other provinces. But even before Upper Burma was annexed, Lower Burma was not paying its way. Gokhale finds that for more than 40 years the whole of Burma was a costly white elephant to India and "as a result we find that Burma is indebted to-day (27th March, 1911) to India to the tune of about 62 crores." *But the lion's share of this huge amount was borne by Bengal* not only in the shape of increased taxation on salt but because of her being the largest contributor to the Imperial Exchequer. The real objective of annexation was the finding of a profitable market for the products of the Lancashire looms and the possession of the rich timber forests, the ruby and oil mines; the exploitation of which has been going on merrily. Thus the poor starving Indian ryot paid the cost of annexation and upkeep of the province and the British capitalists and adventurers throve galore. Recently an agitation has been engineered by designing British exploiters for the separation of Burma from India. Some thoughtless Burmese have also been won over to this purpose by the lure of a few appointments under Government.

III. Drain of Wealth of Bengal due to Meston Award.

The Meston Award deprives Bengal of more than two-thirds of her revenues, leaving only one-third for the really "nation-building" departments. Under this, our unfortunate province is made to part with the most expansible items of revenue, *e.g.*, Customs, Income-tax, Railways, etc. Thus Customs which yielded nearly 34 crores in 1921-22 leapt up to nearly 50 crores in 1929-30. Whereas the most unpopular and least elastic sources were left to the so-called "transferred" subjects under the Indian Ministers with the bitter irony that they must bear the opprobrium attached to the spread of the vices of drink (alcoholic excise) and litigation (stamp and court fees).

It has already been shown that since the battle of Plassey, Bengal has been the milch-cow which has supplied sinews for

conquest of the whole of India. Under the "Reforms" with its concomitant known as the Meston Award this province has been the hardest hit, and is being ruthlessly bled as far as its finances are concerned.

I have all along tried to show that the "financial starvation" of Bengal, (the "milch cow") began since the battle of Plassey. The Meston Award simply intensified the evil.

Sir Alexander Mackenzie (Lt. Gov. of Bengal) on the occasion of the debate on the Imperial Budget in the year 1896 spoke thus :—

"The Provincial sheep is summarily thrown on the back, close clipped, and shorn of its wool, and turned out to shiver till its fleece grows again" (to be fleeced again of course).

Thus Bengal is the perpetual victim of Imperial injustice.

Bengal—the richest and the most populous of the five major provinces—is getting the smallest amount for its expenses ; as a result of which is the chronic starvation of its "nation-building" departments. Take only one instance, *viz.*, education. In 1924-25, the latest year for which figures are available, the expenditure on education from different sources was as follows :—

Province	From Govt. Funds.	From Fees.
Madras ...	... 1,71,38,548	84,32,991
Bombay ...	... 1,84,47,165	60,13,969
Bengal ...	... 1,33,82,962	1,46,36,126[7]
U. P. ...	... 1,72,28,490	42,14,354
Punjab ...	... 1,18,34,364	52,87,444

7 Bengal gets from the Government only a little more than the Punjab (of which the population is less than half that of Bengal) and less than each of the other major provinces. Note also that Bengal is the only province which pays for its education more in fees than it receives from the Government.

Taking Education, Public Health, Medical, Industries and Agriculture as the five nation-buliding departments, we have arrived at the following table from which the financial plight of the province of Bengal can be read off at a glance.

Expenditure *per capita* on nation-building services based on accounts of 1928-29.

Province		Aggregate amount spent	Expenditure *per capita*
Madras	...	... 4·25	1·00
Bombay	...	... 3·07	1·59
Bengal	...	... 2·73	0·58
U. P.	...	... 2·98	0·65
Punjab	...	... 2·90	1·40
B. & O.	...	... 1·47	0·42
C. P.	...	... 1·08	0·77
Assam	...	... 0·58	0·76

(Figures of Column 2 in crores of rupees and figures of Column 3 in rupees only).

Roughly speaking, the Punjab and Bombay spend respectively, 166 and 133 per cent. more per head than Bengal on nation-building services; Madras spends roughly 66% and C. P. and Assam 25% more per head than Bengal under these items. Here also the only province spending per head lower than Bengal on nation-building services is Bihar and Orissa.

It is conclusively proved that the "Meston Award" has legalised plunder and is absolutely iniquitous. Bengal ought to have the whole of the jute export duty. According to Mr. K. C. Neogy, up to the 31st March, 1927, the Government of India have, by means of this tax, netted at least 34 crores of rupees, starving all the nation-building departments of Bengal.

Another source of weakness in the financial position of Bengal is its lack of earning under the head 'Irrigation'. While valuable revenue has accrued to a number of provinces

as a result of a large capital expenditure in connection with the irrigation operations, no such revenue of considerable magnitude accrues to this province. The following table indicates the comparative position of Bengal in regard to irrigation revenue.

Irrigation revenue in various provinces based on the accounts of 1928-29.

Province		Interest on borrowed capital employed in irrigation.
Madras ...	1·83	0·53
Bombay ...	0·65	0·55
Bengal ...	0·01	0·18
U. P. ...	0·84	0·88
Punjab ...	3·74	1·20
B. & O. ...	0·20	0·20

(Figures in crores of rupees).

For an unblushing admission of the real reason of the unfair financial treatment of Bengal, one may profitably quote the observations of Mr. Forbes, the member for Madras, in the Indian Legislative Council, 3rd May, 1861 :—

"When Mr. Grant (Lieutenant-Governor of Bengal) complains that Lower Bengal does not receive its fair share of public works expenditure, I think he leaves too much out of consideration that the permanent settlement has deprived the Government of the inducement to expend money in these provinces as they would receive no direct return for their outlay ; and although the indirect return would be inducement enough if they could do no better, it is not surprising that they prefer to expend capital in those parts of the Empire where the return is both direct and indirect." Quoted by J. N. Gupta : *Financial Justice to Bengal,* pp. 57-58.

It is evident that Bengal suffers inspite of the fact she has enough resources to depend upon for her internal development. Apart from anything else only the income from the

export duty on jute (4½ crores nearly) would have saved her from financial bankruptcy. That Bengal now makes the largest contributions to the coffers of the Central Government is evident at a glance from the following table :—

Province of India.	Percentage of revenues contributed.	
	1921-22.	1925-26.
Bengal	... 36·0	45·0
U. P.	... 6·0	1·6
Madras	... 12·3	9·6
Bihar and Orissa ...	... 0·7	0·7
Punjab	... 4·0	1·5
Bombay ...	... 39·0	40·0
C. P.	... 1·5	1·0
Assam	... 0·5	0·6
Total ...	... 100·0	100·0

J. N. Gupta, *op cit.*, p. 35.

It will thus be seen that the foundation and consolidation of the Indian Empire have been achieved by means of continuous exactions from the Bengal treasury ; in conducting the wars with Tipu, the Marhattas and the Sikhs, this unhappy Province has been bled white and her legitimate wants have been all along ignored. Under the Meston Award again this copious bleeding has been going on still merrily.[8]

Bengal has thus been sacrificed at the altar of the Moloch of Imperialism, on the time-honoured Rob-Roy principle :

"For why? Because the good old rule
Sufficeth them ; the simple plan,
That they should take who have the power
And they should keep who can".

8 It is evident from the findings of Federal Finance Committee, just released, (June, 1932), that Bengal cannot expect any substantial succour from the Central Government even during the next stage of the Reforms. Bengal has, in fact, been left just where she was.

CHAPTER XXVI.

BENGAL—THE MILCH COW (*Contd.*).

THE FAILURE OF THE BENGALIS AND THE ECONOMIC CONQUEST OF BENGAL BY NON-BENGALIS.

I. FAILURE DUE TO INEPTITUDE.

The two essential elements to ensure success in trade and commerce are sadly lacking in the Bengali character—I mean a spirit of enterprise and a business instinct. The Bengali is more idealistic and sentimental than practical and therefore in the actual world of business holds a backward place. A side light on this point is thrown by the account of the cloth trade of Dacca in 1753 as given by Taylor. We glean from it a fair idea of the merchants of different nationalities excepting Bengalis taking part in Bengal commerce during Alivardi's rule. They are (1) the Tooranese (merchants from Turan—country beyond the Oxus) ; (2) the Pathans for the markets of the upper provinces ; (3) the Armenians, for the Basra, Mocha and Jidda markets ; (4) the Moghols, partly for home consumption and partly for the Basra, Mocha and Jidda markets ; (5) the Hindus for home consumption and finally (6) the English company ; (7) the French company ; (8) the Dutch company.[1] The European companies, it is needless to add, carried on exportation to Europe as well as to other foreign markets. The important share, which the Armenians bore in the maritime trade, will also be evident from the fact that after the fall of Siraj-ud-dowla the treaty which was entered into with Meer Jaffar had a clause of indemnity to "Sufferers at the loss of Calcutta". While 50 lakhs was allotted

1 J. C. Sinha : *op. cit.*, pp. 32-33 (footnote).

to the English sufferers, 7 lakhs was granted to the Armenians.[2] Even in the sixteenth century the sea-borne trade was by no means inconsiderable for it is on record that in 1577 Sheikh Bhik of Maldah sent 3 ships of Maldahi cloth to Russia by the Persian gulf.

In Hasting's days the foreign trade of Bengal was almost entirely in the hands of the Europeans.[3]

In the cloth trade of Dacca quoted above under item (5) come the Hindus for home consumption, but the value of the cloth is given as Rs. 200,000 out of the total Rs. 2,850,000 ; in other words less than one fourteenth part of the trade falls to the share of the Hindus, who again are properly speaking non-Bengalis.

It is well known that Banking and mercantile transactions go hand in hand. In Europe, in the middle ages and especially in the 15th, 16th and 17th centuries in Venice, Amsterdam, Hamburg, London, in fact, wherever there was a brisk maritime trade carried on, there was a Rialto, the Exchange humming with money dealers and gatherers.

The general apathy of the Bengali in business was taken advantage of by shrewd up-country Hindus in the Department of Banking, which is essential to commercial undertaking.

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2 Stewart's *Hist. of Bengal* (1813), appendix, p. 547.

Cf. "The Armenians have, from time immemorial, traded with India, whither they were allured from their distant homes in the snow-clad mountains of Armenia, by the glamour of lucrative trade in spices, muslins and precious stones which they carried on successfully with Europe long before the advent of any European traders, adventurers and interlopers into the country."—*Indian Historical Records Commission*, vol. iii. p. 198.

3 "Excepting two branches of maritime trade, (trade with the Maldives and Assam) which, for particular reasons (bad climate of the Maldives and Brahminical influence in Assam) have been confined to the country, the people of Bengal have been deprived of all others by the Europeans."—Abbé Raynal : *A philosophical and political History of the settlements and trade of the Europeans in the East and West India*, vol. i, p. 144. (Ed. Lond., 1783.)

They began to establish banking agencies near Murshidabad towards the latter half of the 17th century. Thus we read:—

"Banking on European lines is of comparatively recent growth in India. Long before the Europeans came into this country there had been a highly developed indigenous system. No royal court was complete without a State Banker, who was often invested with the power of a minister".[4]

Again: "These Hindus were especially influential in matters of finance, for the commerce of the province was almost entirely in the hands of big merchants, most of whom were up-country Hindus, like Omichand and the Seths, though a few were Armenians, like Coja Wajid and Aga Manuel."[5]— S. C. Hill: *Bengal in 1756-1757, Chap. I. Intro.*

It was during the reign of Emperor Farrukhsiyar that the great financial house of Jagat Seth rose to the pinnacle of its wealth and greatness. This family was founded by a Jain merchant named Manik Chand, who died in 1732, but who had apparently handed over the management of his business in Bengal to his nephew, Fathe Chand, before his death. In 1713, when Murshid Kuli Khan was made Governor of Bengal, Fathe Chand was appointed Imperial Banker, and given the title of 'Jagat Seth', or 'Merchant of the World'. He died in 1744, and left his business to his grandsons, Seth Mahatap Rai and Maharaja Swarup Chand, whom we shall find figuring largely in the history of the Revolution. In the English accounts no distinction is made between Fathe Chand's grandsons, and they are generally referred to simply as 'Jagat Seth' or the Seths. The importance of the firm at Murshidabad was very great.

"Juggutseat is in a manner the Governor's banker; about two-thirds of the revenues are paid into his house, and the

4 H. Sinha: *Early European Banking in India*, p. 1.

5 Coja Wajid was not an Armenian; in fact, at page 304 of the same book we read: "The Nawab had employed the Moor (Moslem) merchant Coja Wajid as his agent".

Government give their draught on him in the same manner as a merchant on the Bank, and by what I can learn the Seats (Seths) make yearly by this business about 40 lacks".

Under Mahatap Chand, this house reached the zenith of its prosperity. Nawab Alivardi Khan highly respected Mahatap Chand and when in 1749 the English Factory at Kashimbazar was surrounded by the Nawab's troops, owing to the dispute between the English and some Armenian merchants, the English propitiated the Nawab by paying him through the Seths, 1,200,000 rupees. Banks under European management had not then been started in this country and the English and other foreign companies used to borrow money from the Seths. "Their riches were so great that no such bankers were ever seen in Hindusthan or Deccan ; nor were there any Bankers or merchants that could stand a comparison with them all over India. It is even certain, that all the bankers of their time in Bengal were either their factors or some of their family". There were however other bankers though of lesser magnitude. During the early days of the Company's rule, the remittance of land revenue from the outlying districts to Murshidabad and afterwards to Calcutta used to be carried on through them. By 1780, the house of Jagat Seth had begun to decline and in 1782, Gopaldas and Harry Kissen Das were appointed in its place.

Among other influential indigenous bankers of this time occur the names of Ram Chand Shaw and Gopal Charan Shaw as also of Ram Kissen and Lachmi Narayan. We also read that Ramjeeroum (Ramjee Ram) *gomosta* (agent) of the leading banking firm of Nuderam Bydenath in Calcutta, in his evidence before the Currency Committee of 1787, said that the chief business of the firm was in bills of exchange for the remittance of the collections of revenue. In 1788 Shawgopal Doss and Monohur Doss[6] and twenty-four other *Kothiwals* (i.e. indi-

6 The busy quarter in Burra Bazar known as Monohur Das Chak is evidently derived from his name.

genous bankers) of Calcutta sent an "address of thanks" to Cornwallis for the steps taken to reduce the batta on mohurs. The author of the *Economic Annals of Bengal* thus sums up the situation: "It appears from the names of these *Kothiwals* and other signatures in vernacular that *all of them were non-Bengalis*. The Bengalis had no banking house in Calcutta at that time. The Bengali bankers were apparently mere *poddars* or money changers."—*op. cit.* p. 212.

One instance may be cited here to prove to what extent the indigenous banking system had spread over Bengal and the up-country. In the pre-railway days, some 75 years ago, my grandfather went on pilgrimage to Gaya and Benares. The journey in those days had to be performed in bullock carts or in boats and it was not safe to carry cash of any large amount. My grandfather deposited money with a banking house in Burrabazar (Calcutta) and was furnished with letters of credit (hundi) to the up-country cities.

Banking and mercantile enterprise often go hand in hand as I have said above. A century and a quarter ago, when Rammohan Ray was *Sheristadar* of Rungpur, he used to hold meetings in the evenings to discuss religious problems. We find the Marwari traders already in evidence there.[7]

Even before the annexation of Assam by the British the Marwaris had gone up the Brahmaputra to its very sources *e.g.* Sadiya, and were carrying on a most lucrative trade. More than a century has elapsed since then and we now find the

[7] Cf. "From all accounts, it was during his residence in Rungpur that Ram Mohan first began to assemble his friends together for evening discussions on religious subjects, especially on the untenable positions and absurdities of idolatry. Rungpur was then a place of considerable resort, and among its inhabitants were a good many merchants from Marwar in Rajputana, Jainas by faith. Some of these Marwaris used to attend Ram Mohan's meetings, and Mr. Leonard says that he had to learn on their account the *Kalpa Sutra*, and other books appertaining to the Jaina religion".—*Life and Letters of Rammohun Ray, London* (1900) by Miss Collet: p. 12.

Marwari trading and banking houses spreading over the length and breadth of Assam i.e. the Darang or the Brahmaputra Valley, like a network and even financing European Tea gardens to the exclusion of the Assamese.[8]

At Darjeeling, at Kalimpong,[9] in fact on the Sikim and Bhotan frontiers, an extensive export trade in wool, musk, ghee, cardamom etc., as also import trade in salt and piece-goods amounting to several crores, is carried on exclusively by the Marwaris. The Bengalis have allowed themselves to be driven out of their own vantage ground. To what extent this slow, imperceptible and peaceful penetration by the Marwari has affected the rural economy of our country will be made clear by reciting some typical instances. At Karmatar within a stone's throw of the East Indian Railway Station is the Bazar or the trading mart. Here all the important export and import business is in the hands of the Marwari traders. From Karmatar I once had occasion to go to a place named Karo nearly five miles off ; here also one or two Marwari houses had the monopoly of all the trade ; they were also waxing fat as money-lenders to the poor peasant folks all round.

In Bengal proper also the state of things is much the same. At Talora in North Bengal near Bogra, a Marwari is the biggest exporter of the local rice ; he has set up a rice mill ; he is in addition a thriving money-lender. At Bardal, on the river Kapotakshi in the southern portion of Khulna, there is a weekly hat or mart where an extensive import and export transaction is carried on ; but the leading firms are all owned

8 Cf. Gait's *Assam* : "As early as 1835 when the journey down stream from Goalpara to Calcutta occupied from 25 to 30 days and that in the opposite direction about 80 days or more, we find enterprising Marwari merchants establishing themselves in Assam and some of them had penetrated even as far east as Sadiya".

9 Kalimpong is called the "inland port of Tibet" as all its export and import trade is carried on through this city. The export of wool alone is valued at 50 to 60 lakhs of rupees. There are, of course a few Bengalis at Kalimpong but simply as officials or clerks in Government offices.

by Marwaris. Bishnupur, near Bankura is a seat of Tusser (a kind of coarse silk) cloth manufacture. Only a few years ago the business was conducted by the Bengalis, but they have now been completely ousted by the pushing and plucky Marwaris. The silk industry of Murshidabad and Maldah is also mainly carried on by advances from the Marwaris and Bhatia merchants, who are practically the biggest exporters of the stuff.

Bengal is an agricultural country. The produce of the land—rice, jute, oil-seeds, pulses—is mainly controlled by the Marwaris who would have also taken a large share in export of hides, had it not been for the fact that their religious prejudice stands in the way.[10] The import trade of Bengal is also to a large extent in the hands of the Marwaris ; not only are they the *banians* of the importing European houses, but between these and actual consumers there is an "interminable series" of dealers and middlemen who are principally Marwaris.

It should however in fairness be admitted that among the middlemen who act as distributors in the export and import trade there is yet a not inconsiderable number of Bengalis, both Hindu and Mussalman. The high caste Hindus and the upper class Mussalmans have, however, no lot or part in it. They chiefly hail from the Tili and the Saha and sometimes from the Kapali castes. Many of these latter, however, have now become Zemindars and money-lenders and are fast losing the mercantile instincts. Though they have not as-yet swelled the ranks of degree-hunters as the so-called upper castes represented by the Brahmins, the Kayesthas and the Vaidyas, still they find themselves ousted from their ancestral callings by the virile and plucky sons hailing from outside Bengal. The Moslem youth of Bengal has been still more behind in the struggle and

10 The fish trade is however being slowly captured by the adventurous up-countrymen and even Marwaris. The Hilsa of the Padma and the sea-fish as caught at Chilka lake are purchased wholesale at the depots, packed in ice and sent to Calcutta.

competition for bread-winning. There are the Mussalman *Bapariẹ* and *Aratdars*; but they all belong to the lower and illiterate classes. The Hindus have an instinctive repugnance for cow-hides and hence the internal hide trade is the monopoly of the Mussalmans. But all the big exporters of such raw hides are Europeans.

II. Failure due to Lack of Versatility and Adaptability.

The utter helplessness and ineptitude of the Bengalis in business can best be illustrated by citing the following instances. In the districts of Barisal and Noakhali there are betelnut plantations. But the owners of these sit idle; and the extensive export trade in betelnut is mainly in the hands of the Maghs (Arrakanese), Chinese and the Gujratis, who, as middlemen, reap a rich harvest.[11]

The higher castes of the Hindus in the district of Barisal are congregated into certain small tracts, *e.g.* the villages of

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11 Cf. "The export of betelnut to Rangoon and Calcutta is the monopoly of Burmese, Chinese, and Bombay merchants all of whom have their agents at Patarhat drawing fat salaries varying from Rs. 1000/- and upwards per month. They live with their families and the place in the exporting season bears the semblance of a Burmese town. Not far from the steamer ghat are the boundaries of each merchant within which hundreds of maunds of betelnut are dried up daily or kept in stock ready for putting into sacks before exportation. Like the jute business in the Eastern Districts of Bengal this trade in betelnut is important in as much as the total export varies from 30 to 40 lakhs of rupees a year. But unfortunately for the people, the bulk of the profits derived from the trade of betelnut goes into the pockets of the middlemen". *The Bengal Co-operative Journal*, vol. xii, (No. 3, January, 1927), p. 218.

The writer, evidently, under-estimates the value of the betelnut export. Jack, in his *Bakarganj*, (1918), places the value of the betelnut at no less than three quarters of a crore, *i.e.*, 75 lakhs.—*op. cit.*, p. 52.

In glaring contrast with the apathy and helplessness of the Bengalis, the activity of the Aradhya (lit. to be worshipped) Lingayets of Shimuga (Mysore) may be cited. During my recent visit to the Bhadravati (a taluka of Shimuga) Iron Works I learned that, though occupying a respectable position in the social scale, the Lingayets take part as middlemen in the exportation of arecanuts worth about thirty lakhs; they are also grain dealers.

Banaripara, Batajor, Goila and Gabha etc. Only a few of this class can depend on their landed property. Most of them follow the beaten track. If they had pluck and energy, they could easily snatch away the profits of the middlemen in the betelnut business and retain every year some ten to fifteen lakhs in the district of their birth ; they could also thus live in comfort in their own homes instead of swelling the rank of the homeless intellectual proletariat.

Then again India imports from outside (via Singapore) two crores and a half worth of betelnut. If the college-bred youngmen would only increase the yield of betelnut by new plantations based upon improved scientific methods of agriculture, they could earn several additional lakhs. But as Mr. Jack pathetically remarks ; "The inhabitants of the district have little inclination for trade.....The only disquieting feature in the material condition of the people is to be found in the indigent circumstances of some portion of the higher caste Hindus, who form somewhat too numerous a proportion of the total population in the *sadar* sub-division and are therefore unable to obtain a subsistence by their traditional employments. *They have as yet displayed no versatility or adaptability.*" (The italics are mine).

So much for the betelnut trade. Let me cite another deplorable and pointed instance. The northern portion of Rungpur (chiefly included in the Nilphamari sub-division) grows a superior quality of tobacco, which is in much demand in Burma where cheroots (cigars) are manufactured out of it. From the Season and Crop Report of Bengal, 1928-29 (p. 16) it would appear that the normal area under tobacco was 138,200 acres ; taking the price per maund, calculated on the basis of the five years' (1924-29) average at Rs. 16 annas 6 and the yield per acre at 6 maunds, the total price of tobacco crop comes up to 1 crore and 36 lakhs.[12] But the lamentable feature

12 The tobacco crop for the year 1928-29 was, however, a record one. The area under cultivation was 190,000 acres; the total yield at

is that the marketing of this commodity is in the hands of the Burmese and the Khojas of Bombay.[13] The landholders and lawyers of Rungpur send their sons to Calcutta to be educated at the Colleges and remit per month Rs. 45-50 for each for 4-5 years consecutively. The local college also is utilised by those who cannot afford the expenses of sending their sons to Calcutta. The young hopefuls after completion of their educational career find themselves stranded in the battle of life; they either swell the ranks of the briefless lawyers or miserably-paid teachers and clerks. As I have repeated almost *ad nauseam* that had those "educated" landlords and lawyers turned their attention to improved methods of agriculture and to the distribution and sale of the produce of the land, they and their

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12¼ mds. per acre was 23,27,500 mds.; the market price was Rs. 20 per md. These figures were in excess of the normal. Hence the total price of the crop jumps up to 4 crores and 65 lakhs, *i.e.*, more than thrice the average of the last five years. As in the case of jute, the area under cultivation is largely controlled by the price-current of the staple.

13 List of some of the regular exporters of tobacco (unmanufactured) from Calcutta to Burma ports.

Messrs. H. Thye & Co., 2, Amratola Street, Calcutta.

,, H. T. M. H. Tayoob & Co., 12, Amratola Street, Calcutta.

,, H. F. N. Mahamed & Co., 19, Zakaria Street, Calcutta.

,, S. Dadabhoy Bros. 72, Canning Street, Calcutta.

,, N. J. Chand, 23, Amratola Street, Calcutta.

,, A. D. Bros., 146, Lower Chitpore Road, Calcutta.

Cf. also: "The Committee met one Gamiruddin of Kabaru, Police Station Kotwali, Dist., Rangpur, who himself locally cultivates 18 bighas of tobacco and is also a big Dalal (broker) dealing in tobacco business. Tobacco leaves are sold through these Dalals to merchants coming from different parts of India, *mainly from Akiyab, Moulmein and Rangoon*. There are as many as 500 Dalals in the locality and Gamiruddin is said to be a small fry among them; still he gave us an idea that his transaction annually amounts to over Rs. 50,000".—*Report of the Bengal Provincial Banking Enquiry Committee*, 1929-30, vol. i, p. 321.

From my own private inquiries I am in a position to corroborate the above. There are any number of dalals of the G(J)amiruddin type, who earn four times as much as an average graduate and who never have to leave their homes in search of miserably paid jobs.

children could have stayed in their own districts and villages and earned lakhs, I had almost said crores of rupees. Moreover, as the tobacco or the jute season barely lasts for more than three months, the remaining months of the year they could utilise in literary and agricultural and other pursuits.

The eldest sons of the peers of England due to the law of primogeniture inherit the ancestral landed estates, the younger ones often go to the agricultural colleges at Cirencester and elsewhere and after gathering elementary knowledge of the subject emigrate to Australia or Canada and become prosperous farmers. But our "educated" people have blindfolded themselves so to speak and can never move an inch beyond the beaten groove. It never occurs to them that by improving the methods of cultivation by application of manures and using superior strains of seeds the quality of the crop could be improved and its quantity increased. As it is they are content with leaving things as they are, the crude method of cultivation is allowed to be perpetuated.

This is all the more to be regretted as there is a Government tobacco farm at Burrihat (Rungpur) in which improved varieties of tobacco leaves are being introduced as also proper manuring methods. But the sons of the local gentry and landowners do not evidently think it worth while to take advantage of the opportunity. Let me here reproduce the reply I received from the Superintendent of the Government Tobacco Farm, Rungpur which fully corroborates my statement:—"I regret to inform you that the sons of gentry rarely come to this Farm now-a-days to learn the improved methods of tobacco farming." It is indeed heart-rending to find the Bengali youngmen so very demoralised by their "insane craze for University degree" that they are even unable to avail themselves of the opportunities which lie at their doors, so to speak.

Then again, I find new trunk lines or branches of railways are being opened every year but all the contracts for these

undertakings are the monopoly of the Cutchis,[14] Gujratis and Punjabis. Where is the Bengali? Echo answers! Where? In short, the want of versatility and adaptability as Jack puts it, is the most distressing feature in the young Bengali. As poet Kalidas says:—

रेखामात्रमपि क्षुण्णादामनोर्व्यत्क्रमः परम्।
न व्यतीयुः प्रजास्तस्य नियन्तुर्नेमिवृत्तयः॥

i.e. he cannot deviate by a hair's breadth from the beaten track.

III. The non-Bengalis in Bengal Trade.

But why enumerate isolated instances? The Marwari (as also the Gujrati) is here, there and everywhere. He finds out by a sort of instinct where money is to be made. Wherever he goes he manages to get a foothold, establishes himself permanently and the local hereditary traders and merchants, generally belonging to the Tili and Saha castes, go to the wall.

I can perhaps ceaselessly go on enumerating these dark and gloomy series of episodes in their tragic vividness which will prove to demonstration the miserable plight to which the Bengali has brought himself.

By and by the Bengali is being thrown out of Bengal trade. Aluminium utensils in the shape of tiffin-carriers, cooking pots, cups, dishes, basins, etc., are coming extensively into use in Bengali households; but they are all manufactured by the Bhatias who have secured a monopoly of these articles throughout India. The process of making them is extremely simple. Thin imported sheets of the metal are hollowed into different shapes with the aid of the stamping and spinning

14 For instance, Mr. Jagmal Raja, a native of Cutch, is a labour contractor for the Bally bridge (across the Hughli, near Calcutta). He is also a big contractor for the coal raisings in several collieries. Mr. Raja is also a business magnate at Allahabad where he owns a glass works. How a single man, who according to our current notions, is barely semi-educated, manages so many concerns of divers nature scattered throughout the length and breadth of this vast peninsula, is a puzzle to the average degree-hunting Bengali.

machines. The Bengali graduates in science (M.Sc.'s) will recapitulate all the physical properties of aluminium, namely ductility, tensility, conductivity, as also their chemical properties. But the Bhatia knows nothing of these and yet makes a fortune from the uses of the metal.

In the mining industry also the Bengalis cut a sorry figure. In this field the Europeans are first and foremost. Among the Indians the Marwaris and Cutchis are in the forefront. They know nothing of geology and mineralogy ; but all the same they are always on the look-out as prospectors. They have secured large tracts of mining leases and are also proprietors of coal and mica-mines, which they work on their own account. The brilliant Bengali graduate, with his high-sounding Indian and foreign diplomas in Mining, Engineering and Geology, thinks himself fortunate if he can secure a job under them. The lac industry also finds the Bengali almost unrepresented. The Marwaris have followed in the track of the Europeans and are plying a roaring business. The important mica mines are in Kodarma (Bihar). Among the pioneers of the mica trade occur the names of a few Bengalis ; but the business is now practically the monopoly of the Europeans and Marwaris. The declared value of export of this mineral in 1926 and 1929 exceeded a crore of rupees. [Vide *Indian Mica* by R. R. Chowdhury (1932)].

The motor traffic is fast becoming the monopoly of the Punjabis who are also expert electric fitters. The artisans in the plumbing business are all Oriyas. The shoe-makers of Calcutta are either Chinese or up-country *chamars*. The cooks and menial servants in Calcutta as also in the provincial towns, are, as a rule, up-country men or Oriyas. All the labourers, including coolies on the railways, the crew in the country boats which ply on the Hugli and other rivers are chiefly Beharees or U. P. men. The barbers of Calcutta, Dacca and other towns are mostly non-Bengalis. The masons of Calcutta are being rapidly supplanted by up-country men. Not a single carter or coolie in Calcutta is a Bengali. In a Government

report on labour in Bengal (1906), it is stated that 20 years earlier all the hands in jute mills were Bengalis, but that at the date of the report two-thirds of them were immigrants. By 1918 about 90 per cent. of the labour was imported.[15] The number of Bengali labourers is continually on the decrease and at the present moment it probably does not exceed 3 per cent. It is a significant fact that a little over half a century ago, the cooks, confectioners, barbers and boatmen were all Bengalis.

In the city of Calcutta again almost all the big sweetmeat makers', confectioners' and grocers' establishments are now run by the Marwaris or up-country Hindus. The Eastern Bengal Railway from the Sealdah terminus to Goalando as also to Santahar, Parbatipur, Jalpaiguri &c. runs through tracts occupied purely by Bengalis. But the sweetmeat vendors and refreshment stall keepers are Gujratis and Parsis. Any trade, in fact, which requires organisation and supervision is non-congenial to the Bengali.

In the days of my boyhood the *gowalas* (dairymen) of Calcutta were, as a rule, Bengalis ; now they have become extremely rare. They have been entirely driven out of their profession by the hardy up-country dairymen, who not only keep a superior breed of cows and buffaloes but take care to feed them with better quality of food-stuff and nutriment, thereby ensuring a much larger yield of milk than is the case with the cows kept by the Bengalis. Not only in Calcutta, but also in provincial towns, the Bengali barbers and dhobies (washermen) are fast disappearing and their place is being taken by up-countrymen.

Of the many theories put forward to account for this disappearance of the Bengalis as artisans, domestic servants and labourers one is that it is due to de-vitalisation brought on by malaria. In proof thereof it is cited that in certain quarters of the districts of Burdwan and Hugli as also in

15 *Report of the Indian Industrial Commission* (1916-18), p. 11.

Dinajpur, colonies of Santals have settled permanently, and agricultural operations are to a large extent carried on through their aid. That there is some force in the statement cannot be denied; but it is by no means the real or satisfactory explanation. The malaria theory may be partially applicable to the Burdwan, Presidency and Rajshahi Divisions. But the Dacca and Chittagong Divisions are as yet comparatively free from the ravages of this scourge, and yet even in these parts of Bengal the non-Bengalis are very much in evidence. How are we to account for the very large influx of Behari labourers in the Deltaic regions generally? Even the ferries of East Bengal are run by them.

In Khulna and Bagerhat and in the adjoining district of Faridpur, the big ferry ghats are, by auction, leased out to the highest bidders; but the Bengalis living on the spot are incompetent to manage them. It may be mentioned that Chhatrapat Singh (an up-country man) is the lessee of all the ferries in the districts of Sylhet and Mymensingh. These ferries are auctioned to the highest bidders and are in the gift of the District Boards run entirely by the Bengalis. But the Bengali himself, if he secures a ferry, neglects his duties on account of his indolence and unbusiness-like habits and soon becomes a defaulter. Hence it has become customary for the U. P. non-Bengali, who often begins his career as a menial or cooly, to snatch away this source of income and monopolise it.

I have travelled extensively in East Bengal during the dry season after the subsidence of the flood and I noticed that the palanquin bearers come in batches from Behar and ply a brisk trade. Even in the remotest villages of Bengal I rarely come across any Bengali palanquin-bearer. Formerly, it was the custom for the local people belonging to the so-called lower castes to supplement their agricultural income by serving as palanquin bearers but now they would rather starve than undertake such a "humiliating" task. The fact is that a kind of languor, nay torpor and a false notion of dignity have overtaken the sons of Bengal.

The lower castes have, of late years, acquired a peculiar notion of dignity and self-respect and are too proud to work. They claim to be of Kshatriya and Vaisya (*i.e.* Twice-born) origin and obsessed with this notion refuse to carry any load or luggage or ply a boat, with the result that swarms of up-country coolies and labourers are invading Bengal, while starvation stares the Bengali in the face. The permanent settlement, which ensures fixity of tenure and comparative freedom from enhancement of rent of the ryots, coupled with the natural fertility of the soil, has also largely contributed to this deplorable state of things. But as has been shown elsewhere, the produce of the land but insufficiently supports the people and wherever there is a failure of crops they are on the verge of starvation.[16]

During the relief operations on behalf of the flood-stricken victims in North Bengal (1922), the headquarters were for nearly a month located in the camps pitched on the grounds of the Railway station at Santahar (*vide* chap. XVII). The havoc caused by the catastrophe and the sufferings of the people all around were indescribable and to add to their misery the usual cold north wind of November and onwards had set in. They would come shivering with cold, begging for blankets, clothing and weekly doles of food grains. There used to be in those days a colony of some four to five thousand up-country labourers and coolies at Santahar. As the broad gauge railway from Parbatipur to Siliguri had not then been opened, their services were constantly required for transhipping from the broad gauge to the narrow and vice-versa, as also for the permanent way repairs. But the famished people, although their dwellings were within easy reach of the station, could not

16 During the year (1928) some seven or eight districts of Bengal were in the grip of famine, namely, Burdwan, Bankura, Birbhum, a portion of Dinajpur (Balurghat), Murshidabad and portions of Jessore and Khulna; during the present year (1930-31) on account of the trade slump and the ruinously low price of jute, heart-rending cries of distress are being uttered.

be prevailed upon to undertake what they termed "Coolies' work" as they would thereby lose their *izzat* (self-respect or dignity). When the relief headquarters were shifted to Atrai, it was necessary to engage the services of a batch of up-country coolies on a monthly pay of Rs. 20/- each for the constant carrying of rice bags and bales of cloth from the railway station to the relief camps. No local men—though recipients of charity—would condescend to do what they called menial work. At times some local labourers were procured but they not only demanded high wages but worked in a half-hearted, slip-shod manner.

IV. Failure due to lack of industrious habits.

The Chinese carpenters are fast elbowing out their Bengali confreres, not only because of their superior workmanship but also because of their industry and real ability. Man for man, the Bengali labourer or artisan is no match for the up-country man, as the latter again is no match for the Chinese.[17] If a comparison be instituted between the Bengali carpenter and his Chinese counterpart the difference will be found to be immense, though both belong to the same strata of the society and though both are illiterate. The Chinese carpenter is found in Calcutta to rise step by step to undertake contracts in the railway and P. W. D. He starts carpentry works of his own, whereas the Bengali carpenter, often a Mussalman, is content with his daily wages and easy-going methods and never dreams of improving his position or lot. It is notorious that the

17 "In Calcutta, Hindu carpenters formerly were in the ascendency, but owing to the fact that youths of the younger generation are frequently not apprenticed to the trade, but encouraged to be clerks, they are giving place to Muhammadan and Chinese carpenters . . . . the chief faults of the Indian carpenter are his neglect of accurate measurement, his carelessness with regard to the efficiency of his tools, and his lack of perception of the value of time as a factor in the execution of work. This fault of unpunctuality, I note, is attributed specially to the carpenter in the people's proverbs".—Cumming: *Review of the Industrial Position and Prospects of Bengal in 1908*, p. 16.

Bengali labourer or artisan will slacken in his assigned duty the moment he knows that there is no one to supervise his work ; so much so that this sort of negligence has become almost proverbial.

The up-country man is more active than the Bengali but the Chinese beats them all ; over and above he is highly conscientious. A Chinaman never shirks his duties. Whether his master's eye is on or off is immaterial to him ; he exacts higher wages it is true, but gives a better quality and quantity of work. Another important difference consists in this that the Bengali or the up-country artisan has no desire to improve ; he follows his traditional path ; does his work as a dull, dreary routine ; whereas the Chinaman has not only a clean record but takes pride in, and throws his heart and soul into, his work. Every day he improves and no clumsiness is discernible in his piece of workmanship. Unfortunately he has his vices too ; and though he is slowly giving up his opium-smoking he is still a notorious gambler. The Chinese, however illiterate he may be, is plucky and adventurous. He swarms in Rangoon and the Malaya Peninsula and to a certain extent on the Pacific coast in America ; colonies of Chinese are to be found in Paris, Amsterdam and Manchester, who earn their bread as petty-traders, labourers, etc. In fact, the Chinese will thrive in any latitude ; equally as well at the poles as in the tropics. The Bengali workman, on the other hand, is not resourceful ; he can seldom accommodate himself to altered conditions in these days of rapid change. He would rather starve than leave his ancestral homestead. The Mussalmans of East Bengal, not being slaves of caste prejudices, are known to be more daring and adventurous. As Sarangs (captains) and lascars (crews) they ply the steamers in the inland river navigation. They also often form the bulk of the lascars of the ocean-going steamers of the British Indian, P. and O. and other companies. They often leave their congested paternal glebes and colonize on the *chars* of the Padma and in the wilds of Assam, where they reap abundant harvests of rice and jute ; all the same

they cannot stand competition with their formidable rivals from upper India not to speak of the Chinese.

The small tanneries, as also the shoe-trade of Calcutta, are almost entirely in the hands of the Chinese, Jat Mussulmans, and up-country *chamars*. The following passage will bear me out :—

"There are in Calcutta about 250 Chinese shoe-shops which, between them, employ eight to ten thousand mochis. The usual practice is that the Chinese themselves put together the "uppers" of the shoes, while the mochis stitch on the soles and the heels. The rate of payment for this work varies between 12 annas and 14 annas, and in some cases, where skilled work is involved, even Re. 1/- is paid."—*The Statesman*, Oct. 1930.

If the mean figures be taken, namely, nine thousand and if the average earning be taken as annas thirteen—the wages earned by the *mochis* will amount to about twenty six lakhs of rupees per year. There are a few thousand more *mochis* employed by the U. P. shoe-shops ; a few thousand again do business as shoe-makers on their own account and at the above rate of wages they would be easily earning another twenty six lakhs. Incredible as it may appear, the non-Bengali *mochis* thus earn somewhere near fifty lakhs or half a crore of rupees a year.

Round about the town of Dacca the *chamars* who have no trade to ply are in a chronic state of starvation. They are the most depressed amongst the backward classes of Bengal. They are not ashamed to beg for their livelihood ; they could easily earn a rupee or at least twelve annas a day if they would only hawk about as menders of old shoes or set up as cobblers. But this occupation has been captured by the *chamars* from U. P. and Bihar. Indolence and want of initiative are at the root of their sad plight. The great Serampore Missionary William Carey was not ashamed to own that at one period of his life he was a cobbler. Stahlin the successor of Lenin in his struggling days "cobbled shoes". But a fancied loss of dignity permeates our social system from top to bottom.

An enterprising young Bengali after three years' training at the Government Research Tannery has started as a shoe-maker; he often employs in his establishment ten up-country *chamars* each of whom turns out a pair of shoes a day working ten to twelve hours at a stretch with barely an hour's interval for meals, thereby earning Re. 1/10/- per day, or Rs. 50/- per month; he tells me that a Chinaman though he would not consent to serve on less than Rs. 100/- per month would prove to be cheaper in the long run as he works harder and his finish is superior. The Chinese are as industrious as the proverbial bee. They utilise every moment of daylight and do not waste a minute. Their women are equally active and do not indulge in sleep during the day as do their Bengali sisters. Behind the shops in the family quarters they are very busy in washing the clothes in the tubs or plying the machine to stitch the "uppers". It has been calculated that the Chinese colony of Calcutta earns a crore or more of rupees in the shoe and tannery trade alone. Over and above that the Chinese carpenters earn several lakhs a year.

V. Failure due to want of enterprise and initiative.

Then again when I first came to Calcutta all the spice merchants were Bengalis; now this trade has been wrested from their hands by the Gujratis.[18] Take another instance. When the boycott of British goods was first started during the Partition of Bengal movement, the *swadeshi* cigarette or the

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18 The very term *gandhabanik* in Bengali means a spice merchant, who up till recently had a monopoly of the trade.

I append a list of some of the important spice merchants. Armenian Street: Ramchandra Ramrichpal; Janakidas Jugannath; Rauthmall Kanaialal. Amratola Street: Ratanji Jibandas; Ramlal Hanumandas; Gopiram Jugalkishore; Sukdeo Jaharmall; N. Jagatchand; Jugannath Matilal; Jesoram Hiranand; Surajmall Satulal; Tarmohamed Jalu; Dauji Dadabhai Hossain Kasem Dada; Haji Ali Mohamed; Haji Ali Sew Mohamed; Matichand Deokaran.

It will thus be seen that the Bengali has been completely ousted from his hereditary trade.

biri came into vogue. In Calcutta it was a happy sight to see hundreds of street Arabs who were living a questionable life taking to making the *biri* and thus earning an honest livelihood. The *biri*, however, came into use only among the lower classes, *e.g.* the carter, the cabman, the coolie etc.; it was eschewed by the upper and fashionable set. The Gujrati, always on the look out for fresh fields and pastures new, was quick to realise that if it could be manufactured on a large scale near the source of the raw materials and where labour is exceedingly cheap, a thriving trade would spring up. Accordingly, he chose Central Provinces as the venue of his operation. Gondia on the B. N. Ry., where the Jubbalpur junction begins, is just the suitable spot. Here the soil is arid and the inhabitants are hard put to, to eke out a subsistence and wages are very low. Moreover, the forests round about abound in *sal* and *kendua* trees with their broad leaves serving as wrapper for the *biri*. Tobacco is imported from the Bombay side ; but it is much nearer Gondia than Calcutta or Lahore ; hence the advantage in freight also. It is a purely home industry and no machinery is used. There are some big concerns one of which I visited in 1926. They are merely depots for distribution (of raw materials) and for collection (of the finished product, *biri*). Thus a thriving trade or industry has sprung up, which, I was assured, was the means of bringing bread to the mouths of some fifty thousand people. The factory was turning out ten lakhs worth of articles a year. Since the recent swadeshi movement this trade has got a fillip, as all sorts and conditions of people (at least in Bengal) have kindly taken to it and an extensive lucrative business has thus grown up, bringing in lakhs of rupees as profit.[19]

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19 The importance of the *biri* trade will be apparent from the fact that in 1928-29 the total value of imported cigarettes exceeded two crores of rupees. As owing to the Swadeshi movement imported cigarettes are being slowly displaced by the indigenous *biri*, manufacturers of this article are reaping a golden harvest. An extensive

Let me bring this sickening tale to a close. There have sprung up hundreds of shops for the disposal of *loha and lakkar,* literally scrap iron including parts of machinery. Up-country men, who a few years ago, started as labourers and coolies, began to purchase small lots of scrapped plants and machinery at the auction sales. Now they have guilds of their own. They are always on the look-out for second-hand articles and even pool their resources for buying worn-out steamers. In their shops one can find pulleys, chains, boilers, rivetting bolts, screws, toothed-wheels and odds and sundries. Needless to say that the Bengali is nowhere.

Unfortunately, the University commits an egregious blunder—a blunder worse than a crime—by creating Degrees in Commerce. The student is fed with the hope that by going through a prescribed syllabus of studies and qualifying himself for a *bachelorship in commerce,* he will be equipped with the requisites for success in the world of commerce. The B. Com. has his brain stuffed with theoretical nonsense and realises his mistake when it is too late ; he will talk glibly or reproduce from memory page after page of his text-book shibboleths. As he reads Economic Geography and Economics he has at his finger's end all about the supply and distribution of cotton, jute and cereals. The illiterate *biri* manufacturer, who has

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trade has also recently sprung up for the supply of raw materials, namely, powdered tobacco of a particular description as also *kendua* leaves. The following are some of the important Firms dealing in *biri* and its raw materials :

Moolji Sikka & Co., Ezra Street; Bhola Mia, Canning Street; Chunilal Purustom, Chitpur Road; Kalidas Thakursi, Amratola Street; Bhailal Bhikabhai, Amratola Street; Moni Lal Anondgi, Harrison Road; Satish Chandra Chandra, Harrison Road.

It will thus be seen that there is only one solitary Bengali Firm. The *biri* factories are mostly located in the Central Provinces on the B. N. Ry. line, in Sambalpur, Bilaspur, Champa, Hemgiri, Gondia, Gidhour &c. where labour is cheap; some of the smaller factories employ 200 hands or more while in some of the bigger ones as many as 2,000 hands find employment.

probably never looked at the map of India, has, all the same, mapped out before his mind's eye, all the important spots in India where raw materials and cheap labour are available, and he knows by instinct as it were, how to turn them to account. The unfortunate Bachelor of Commerce is only too eager to secure a petty job in a Marwari or a Bhatia firm as correspondence clerk. His vaunted learning ends in smoke. Blind, thoughtless copying of European models is responsible for this huge waste of the energies and precious time of our youth. It is forgotten that England is a highly organised industrial and commercial country. It is necessary there that the economics of Industry and Commerce should be made a special branch of scientific study. But the Bengali has yet to develop talents and capacity for the essentials of modern business methods. Moreover, in London, lectures which are given in day time are repeated in the evening classes for the benefit of junior employees and apprentices in banks, railways and business houses. With us it is thus a case of the cart before the horse.

In a previous chapter (*vide* chap. XVIII) it has been shown how the craze for degree incapacitates the Bengali youth who fights shy of the rough and tumble of the world for success in business.[20]

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20 It is remarkable that the craze for university degree with its consequent follies has lately seized American youngmen and women. Repeated references have been made about their pluck and sturdiness but even they are now falling easy victims to the seductive charms of "soft jobs and professions." Thus we read in *The Hindu* (July 20, 1932) :—

"The desire for unhealthy speculation is greatly accentuated by the craze for soft professions in America. Everyone wishes to become a doctor or lawyer or real estator or advertising agent or professor. There is no incentive for hard work and manual and agricultural labour is mostly done by the coloured immigrants. The supply of members in these blackcoated professions is greater than the demand and consequently there is widespread unemployment. Commander Kenworthy says that in New York there are as many as 20,000 lawyers most of whom have no work. A well known English author and traveller, who

The Marwari or the non-Bengali immigrant as a class has a low standard of living at the early start in his career, he manages to subsist on the irreducible minimum; he is quite willing to do manual work and toils incessantly from early morning till 10 o'clock at night with only brief intervals for meals and thus is in a position to outsell and outtrade the indigenous traders. It is now easy to realise why America (The U. S. A.) has enacted stringent regulations against Asiatic immigration. John Chinaman living on a handful of rice and spending nothing on drink becomes a formidable competitor in wages against his white brethren and as a hawker or petty trader can afford to sell on a much lower margin of profit. In fact, the Immigration Act, however it may be resented by the Asiatic, was prompted as an act of self-defence and is based not so much on racial discrimination as on economic grounds.

It is a pity that the Bengalis are getting out of the field of business and commerce of Bengal, undoubtedly for their own fault. Thus an well-informed correspondent in the *Statesman* (Feb. 11, 1931) writes:—

"When I first hailed from Bombay in the nineties of the last century most of the trade was in the hands of the Bengalis; but for want of enterprise accompanied with honesty they have been slowly pushed aside not only by the Europeans, but also by the Marwaris, Khojas, Bhattias, Madrasis and the Parsis.

* * * * * *

has toured in the States extensively, has told me that the legal profession is the most miserable profession in the United States. It may be that half the lawyers in New York have not the money to buy a five cents newspaper: but still the fact remains that new entrants are joining the profession in as great a number as in the past. The number of gradnates turned out by the universities every year is estimated at 120,000, and not even a quarter of this number are able to find employment. The Education Department Statistics reveal, to take one year as an example, that in 1928, 563,244 men and 356,130 women took their degrees at the university convocations. It is this revulsion to manual labour that is one of the potent causes for the widespread unemployment in the States."

Bengali merchants were all-powerful in all cases of important trade-such as rice, jute, sugar, salt, etc. But from this date Ralli Bros., changed their brokers from a Bengali firm to a Marwari firm. That firm is still carrying on the brokerage business in piecegoods for Ralli Bros., under the able guidance of Sir Hariram Goenka. Now naturally a Marwari firm having secured the brokerage business of a very large firm, that firm as a natural corollary brought in Marwari dealers and ever since that date the Marwaris have gradually driven away Bengalis from all classes of trade. It is a well-known fact that to-day nearly 80 per cent. of jute shares are held by the Marwaris.

I can give one more instance to show how Bengalis are losing trade for their defects. In Radha Bazar Street originally all the woollen merchants were Bengalis who never opened their shops before midday and what we see as a result of this lethargy is that the Boras (a Mohommedan tribe of Cutch) have driven away almost all the Bengali woollen merchants as this hard-working community open their places of business at seven or eight in the morning with the result that persons making their purchases early in the day have flocked to these Bora shops."

A few decades ago almost all the banians (mutsuddis) of the European houses were Bengalis. Below is given a list of some of the notable ones :—

Gora Chand Dutta (Crooke Rome & Co.,); after his death his son Chandi Dutta entered into partnership with one Chandra Dhar of Chinsurah and carried on the business. Later on one of their sub-agents, Ghursamal Ghanasyamdas, became the banian of the firm—the Bengali losing his ground.

The firm of Prankissen Law & Co., were banians of eight European Houses among others, Graham & Co., Pickford Gordon & Co., Henderson & Co.; Abhoy Charan Guha son of Shib Ch. Guha was banian of nine European Houses, *e.g.*, Graham & Co., Pill Jacob, Swiney Kilburn & Co., Sacherstein & Co.; Lalit Mohan Das (died about 1890) was banian of Geo. Henderson & Co., Chartered Mercantile Bank, Ltd., Rose & Co., and Ralli Bros.; Dwarka Nath Dutt (as well as his son Dhirendra Nath Dutt) was banian of Ralli Bros. (piecegoods department).

I have before me an interesting booklet entitled—*A Short Account of the Residents of Calcutta in 1822 by Baboo Ananda Krishna Bose (1st grandson by daughter of late Raja Radha Kanta Deb)* ;[21] it contains a list of the wealthy men of

21 Published by his grandson, J. K. Bose.

the town, including *residents who became rich by trade and business.* I select a few names only (old spelling retained) :—

1. Bysnubdoss Sett—He was an old inhabitant of Calcutta and a virtuous and respectable man and very rich; he as well as his forefathers were Dewans for the purchase of piece-goods for the Honourable Company; all the Setts and Busakhs of Calcutta are his kins and relations.

2. Ameerchund Babu—He was first Jumadar of the Export Ware House and then having acquired money by trade became Contractor of the Honourable Company's whole merchandise and purchaser of all the goods imported by individuals and thereby earned upwards of a crore of rupees. He was a charitable man and lived at Burrabazar and supported all the Sikhs of his class here.

3. Luksmikant Dhur—He was a very opulent man and Banian to several former Governors and Colonel Clive; he died without issue and was succeeded in his immense fortune by his daughter's son Moha Raja Sookhamoy Roy (who obtained the title of Raja at the time of Marquis of Wellesly and was a Director of the Bank of Bengal).

4. Sobharam Busakh—He was an opulent native of Burrabazar and seller of piece-goods to the Honourable Company and traded in various articles.

5. Ramdulal De Sircar—He was first in the service of Mudunmohun Dutt and acquired almost incredible opulence by serving Messrs. Fairlie & Co., and American Captains as well as by trade on his own account and lives at Simleah in Sootanooty.[22]

6. Gobindchund Dhur—He is son of Nilmoney Dhur, Banker, and acquired wealth by serving European Ship Captains.

The most notable feature is that in the above list there occurs the name of only *one* non-Bengali.

It is of interest to note that the first jute mill on the Hughli as also the first important bank in Calcutta on modern

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22 "Unlike the other foreign traders who dealt exclusively with the European Agency Houses, the Americans transacted their business through Indian merchants or brokers whose charges were very much lower. The most important of them was Ramdoolal De, a Bengali gentleman who began his career as a clerk on Rs. 4 or 5 a month and rose to the position of one of the foremost merchants in Calcutta. He died in 1824, leaving a large fortune of about £400,000."—J. C. Sinha : *Journal of the Asiatic Society of Bengal*, N.S. XXV, 1929, pp. 209-10.

hnes were started mainly with the capital and co-operation of Bengali financiers. Today they are nowhere.

"The first jute spinning machinery on the Hughly was introduced by George Ackland, he arrived in Calcutta in 1852-3, where he made the acquaintance of Baboo Bysumber Sen, a native banian (financial agent) * * * Here (at Rishra), then, about the middle of 1855, the first Indian machine jute spinning mill was cradled. * * * For three years Ackland carried on the business in company with his native partner."—D. R. Wallace: *The Romance of Jute*, pp. 7 and 11.

"The next in point of age is the National Bank of India, established in 1863, under the name of the Calcutta Banking Corporation, which was changed to the present name on March 2, 1864. The Head Office was at first in Calcutta, but was transferred to London in 1866. As a result of this, the bank lost its predominantly Indian character. It may be recalled in this connection that at the time of transfer, four out of seven directors were Indians *viz.*: Babu Durga Charan Law, Babu Heralaal Seal, Babu Patit Paban Seiff and Maneckjee Rustamjee Esq. Of the two auditors one was a Bengali, Shyamachuran De Esq. The paid up capital of Rs. 31,61,200 at the time was increased to £4,66,500, requiring representation of non-Indian interests on a wider scale."—*Report of the Bengal Provincial Banking Enquiry Committee*, 1929-30, vol. i, p. 45.

VI. Clerkdom and failure of the Bengalis.

Now we find that the Bengali is being driven from post to pillar and pillar to post; he is being elbowed out of every career save that of an ill-paid clerk, and even in this field the Madrasi has entered the list and will soon drive him out. It may be said that the clerical career is so interwoven with our past that it has become a part and parcel of our nature; like habit, a second nature.[1] 'Clerking' is so congenial to the Bengali that even scions of well-to-do families take to it as the fish to the water. It has been a common practice during the last half-a-century and more for the Bengalis (especially among the Suvarnabanik Community) to secure Cashierships or Assistant

[1] In my public addresses I have not hesitated to include, Munsiffs, Deputy Magistrates, Personal Assistants (P. A.'s to Commissioners, Inspector-Generals, etc.) and even Accountant Generals among "glorified clerks".

Cashierships in European Mercantile Firms and Banks on depositing gilt-edged securities of the value of a lakh of rupees or more and yet they won't embark upon any trade because of the risks involved. Nothing venture nothing gain is a trite saying but it is lost upon our people. While sending this portion to the press, I happen to cast my eyes on this choice morsel :—

THE MERCHANT'S CLERK.

To The Editor,

Sir,—When Commercial Magnates like Lord Inchcape and such responsible(?) personages talk about India being so much indebted to them and that they have provided a living for so many Indians etc. etc., it makes one sick in that while these commercial people may claim the privilege of having provided this ignoble living, the beggar's bowl, to the poor Indian clerk, the service that he extracts of the clerk is out of all proportion to the remunerations paid therefor. Just imagine the poor Rs. 30 clerk, doing his boss's correspondence, very often even correcting his bad grammar, doing his boss's filing work, arranging all references and having all references at his fingers' tips, possessing a very good and keen memory, remembering things that took place in the business even a decade and duo-decade back, doing the boss's private work, as Secretary of the Cricket Club, Boating Club, Swimming Club, Boy-Scout Work, Consulate work, running when his boss asks him to do it, shouting when he is asked to do so, doing the Memshaib's private work too, such as correspondence of the Ladies' Club etc. etc. What a noble work compared to the pittance of Rs. 30 paid to him! If you do not call anything "prostitution of one's intelligence" this is what you should call so.

* * * * * *

If any commercial firm (I mean foreign firm) built its fortune in India, it was on the intelligence of the Indian clerk and his industry and energy and if any one hailing from the Continent or America or elsewhere has got rich in business, it is because of this faithful service rendered by the Indian merchant's clerk.

* * * The commercial man from the West robs the poor Indian clerk of his brains and industry, gets rich quick, leaving the clerk, a sickly, good-for-nothing, useless creature, unable to stand on his own, and unworthy of the traditions of his once glorious Motherland. * * *

Calcutta, the 30th April 1932; *A. B. Patrika, dak* ed., 21/5/32.

The most distressing innate defect in the Bengali mentality comes out in bold relief in the above letter. There is not a

word about the inherent incapacity of the Bengali in trade and commerce. His only complaint is that his European master who exploits his brain and energy does not pay him adequately ; in other words, he takes for granted that the Bengali is born and doomed for ever to "clerking" and he would be happy with his lot if he were given only higher wages. It never occurs to him that not only the European but also the Marwari and Gujrati office-masters exact from him similar task. The M.Sc., B.L., unable to earn his livelihood, in a scientific career, for a time tries his luck at the bar and swells the rank of the briefless pleaders and at last in despair joins a school of commerce to learn typing and precis-writing and is too glad to serve as a correspondence clerk to the firms of the above nationalities on a bare pittance. The writer again ignores the simple fact that the question of remuneration is settled by the law of supply and demand. The starving Bengali—educated or semi-educated—has his eye on the "Wanted" columns of newspapers. When for a clerical job carrying a pay of Rs. 30/- to 40/- there are several hundreds of graduate applicants some of whom even hinting that unless their cases are favourably considered, they with their families are sure to starve, it is hopeless to expect high wages. Moreover, their Madrasi competitor is on the scene, who has learnt to perfection the art of keeping body and soul together on the irreducible minimum of cheap food stuffs; and he, generally also a graduate with better command of English, agrees to serve on less pay. In a word, the mentality of the helpless clerk is strictly comparable to that of the slave in *Uncle Tom's Cabin* ; he is quite contented with his lot ; the only thing he, bargains for, is that his "mas'r" would treat him with a little more consideration. He is quite ready to work like a galley-slave or a bullock yoked to an oilmill provided he is guaranteed a fixed pittance ; but with all his brains he will never try to earn an independent livelihood ; never ! never ! ! never ! ! ! that of course must be reserved for the European and the non-Bengali. Here is again a typical eloquent corroboration of what I wrote years ago on *the*

Bengali brain and its misuse or "the prostitution of his intelligence".

The poet of human nature not only anticipates the "Bengali clerk" but administers him a homily when he says:

"He shall but bear them [loads] as the ass bears gold,
To groan and sweat under the business,
Either led or driven, as we point the way;
And having brought out treasure where we will,
Then take we down his load and turn him off,
Like to the empty ass, to shake his ears,
And graze in commons.

Octavius: You may do your will;
But he's a tried and valiant soldier.

Antony: So is my horse, Octavius; and for that,
I do appoint him store of provender.
It is a creature that I teach to fight,
To wind, to stop, to run directly on,
His corporal motion governed by spirit."—*Julius Cæsar.*

More than a millennium and a half ago the great *Rishi* Susruta, one of the founders of our *Ayurveda System*, uttered in a pithy aphorism what Shakespeare has said about the beast of burden:—खरश्चन्दनभारवाही भारस्य वेत्ता न तु चन्दनस्य—*i.e.* the ass, carrying on its back the load of sandal-wood, is only conscious of its weight but not its fragrance.

The "Merchant's clerk" forgets that the purely *Indian* Firms also (as in Bombay) give the clerks a pittance at the market rate and thrive at their expense. Clerks are clerks and have no salvation.

The *Englishman* writing ten years ago (Jan. 25, 1922) also predicted that the Bengali clerk is doomed to extinction.

Calcutta's changing Population.

Under the above caption the paper thus describes how the Bengali is being elbowed out of his position of vantage:—

"When people talk of the vast changes that have taken place in Calcutta during the last twenty years they are rather inclined to dwell

upon the improvements that have been effected generally in the amenities of life and in the material aspects of the city such as roads, buildings, lighting, sanitation and so on. They entirely overlook the greatest change of all which is that *Calcutta is ceasing to become a Bengali town* and that every year sees an enormous influx of foreigners whose intention it is to settle and earn their living in the city. These foreigners come not only from other parts of India but from every part of the world. With regard to the last the process ceased during the War, but it is now proceeding with redoubled activity. It is true that the Germans have gone altogether but they are already being replaced by Americans who are quite as resourceful and as determined to stay. Then in another strata are to be added various races from the Mediterranean who are entering into active competition with the Bengali shopkeepers. A third class consists of refugees from the Middle East and Armenia who are finding in Calcutta conditions which permit them to earn a living at the expense of the Bengalis. But the Chinese quarter continues to grow and in some trades, such as shoemaking and carpentry, the Chinaman has almost entirely ousted the local artizans.

But it is from India itself that the Calcutta Bengali, whether Hindu or Mahomedan, is suffering the severest competition. Twenty years ago it was possible to point to the largest and most thickly populated parts of the city and to say that they were inhabited solely by Bengalis. Today that statement is not true of any quarter. The Marwari influx began, of course, some time before the War, still it is hardly more than fifty years old. Prior to that time the banians and shroffs and middlemen and dealers who were building up the wealth of the city were all Bengalis. Burra Bazar was a Bengali centre from whence radiated the threads of commerce and industry. Today when one speaks of Burra Bazar one means the Marwari quarter. Marwaris settle big questions of finance in Calcutta and throng the marts and exchange and in the smaller ways of shop-keeping and retail Punjabi banias and modis from the United Provinces are pressing into the bazars and putting up strange signs in their own languages in the bye-lanes. We have referred on several occasions recently to the advantage Bombay borahs and Afghan traders have taken of the piecegoods boycott in Calcutta, and having once got a footing it will be very difficult to turn them out. Again, in the sphere in which it was believed that the Bengalis had a monopoly that could not be shaken because of their education, that of supplying clerical labour, they are being attacked by Parsees and Madrasis.

The time is not far distant when the Bengali clerk will be as rare in a Calcutta office as a Bengali broker. As an artisan and mechanic in this city the Bengali is being replaced by the Sikh. In the region of unskilled labour, Uriya and Poorbeah coolies have almost everything

in their hands. Twenty years ago domestic service was practically supplied by Bengali Mahomedans. Today these men are being replaced by Gurkhas and Pathans. One could go through the whole range of employment and everywhere the story would be the same. The palaces are occupied by Marwaris and the gates are guarded by Rajputs. Now although the fact, that the population of Calcutta is becoming cosmopolitan, seems to escape general notice the other fact that the Bengali is being ousted from his profession has been frequently written about by Bengalis themselves, who have grown into the habit of speaking of their race as *dying*."

It may be added here that within the last 8 years the influx of the Madrasis and the Punjabis has steadily increased.

VII. The Eclipse of Bengal.

It will thus be seen that in the struggle for existence, unable to face competition with the sturdy sons from the other provinces, the Bengali has succumbed all along the line. Even in the field of politics and economics he has begun to lose ground. The following article which has recently appeared in the *Manchester Guardian* from the pen of its special correspondent in India deals with this *Eclipse of Bengal*. The views expressed here are as discriminating and sympathetic as is generally the case with the Indian correspondents of that influential journal. The article in short summarizes all that I have been urging so long and is of much importance as it enables us to see "as others see us" :—

One of the most noticeable features of Indian politics during the last decade has been the eclipse of Bengal.

Even after Calcutta ceased to be the capital, Bengal retained for some years the intellectual leadership of India. The West might produce its great men, like G. K. Gokhale and Bal Gangadhar Tilak, but in literature and science, as well as in politics, Bengal could and did claim that what it thought to-day the rest of India would think to-morrow. The Bengali is now awakening to the fact that his leaders are very old men, that no one is taking their place, and that whether at Delhi or inside the Congress his representatives have little influence. The political centre of gravity is shifting northwards and westwards.

Western Predominance.

The predominance of the Western Indian businessmen is a new feature in Indian politics. The Chitpavan Brahmins, who used to lead nearly every political movement in those parts, had very little in common with the mill-owners of Bombay and Ahmedabad, and it was only after the death of Tilak, the most orthodox of Brahmins, that the industrialists began to become a force in politics. They have undoubtedly gained by the ascendancy of Mr. Gandhi, a Gujerati and a man of their own caste. He has made it easy for them to come into the Congress, and they soon established their position there by means of heavy contributions to the party funds. Once having discovered that politics is not a difficult pursuit for the very wealthy, the western Indian industrialists have accumulated more and more power. Inside the Congress they were the moving force behind the boycott the effect of which has been much the same as heavy tariff in favour of cotton goods, and they have taken steps that it should be kept up as an economic weapon even after the Gandhi-Irwin pact.

It will be remembered that this only stopped the use of pickets for an anti-British boycott, and not for anti-foreign propaganda. It is probable that Mr. Gandhi himself would have been glad to see the end of all picketing in the bazars for it is always liable to lead to disorder, but in this matter he had the industrialists within the Congress strongly against him, and he could not go beyond the letter of the pact. On this subject the *Bombay Chronicle*, which voices the opinion of the mill-owners, is directly opposed to Mr. Gandhi.

The Bengali and the Mill-owners.

The Bengali nationalist may be prepared to make some sacrifice in order to help the homespun khaddar, but he has no desire to pay more for his cloth merely to benefit the Marwari or Gujerati cotton manufacturer. The Bengal industry is jute, which is almost entirely exported, and Calcutta businessmen of all races are beginning to see themselves as *the milch cow of India*. This feeling has been strengthened by the success with which the western industrialists have captured such bodies as the Federated Chamber of Commerce and forced their views upon the Government. The new policy regarding salt will put a very heavy burden on Bengal in order to help a few Parsee merchants of Karachi and Bombay.

Too many Blackcoats—Loss of initiative.

The decline is so noticeable that it has aroused considerable discussion amongst Indians themselves. *Many blame the university, which*

has certainly helped to create the enormous army of middle-class unemployed, which is such an unhappy feature of modern Bengal (the italics are mine). For many years the landlord class have tended to drift into Calcutta, and their children appear to have no ambition above some small clerical job at a fixed salary. It is a curious malaise which seems to affect the *bhadralok* of the province that the young men lose their ambition, and even the children of wealthy parents will be content with some dull mechanical work, while men from other parts of India are ousting the Bengali from nearly every line of business and every work which requires initiative. It is absurd to place all the blame on the system of education; it would seem to some inherent weakness which keeps the Bengali living in the past, proud and ineffective.

While sending this to the press I find a thoughtful contributor to the *Liberty* (11-8-32) who signs himself as "N. C. R." almost reiterates the views of the *Manchester Guardian* correspondent:—

"It would be ignoring facts to say that since the birth of the present century, the Bengalees have produced only camp-followers and no leaders and have played only a second fiddle to the other provinces of India. It has to be acknowledged that till the close of the first decade of the present century, Bengal possessed and enjoyed the palm of leadership in India. During the days of the anti-partition agitation and the Swadeshi movement, the hegemony in Indian public life was undoubtedly vested in the Lower Provinces of Bengal. During the next years, however, Bengal had to come down from this position of supremacy to one of equality with the other provinces. These latter had now organised and developed their political life and brought forth leaders and workers who could hold their own in any debate and controversy with those from Bengal. This position of equality was maintained till the close of the Great War. * * * * But as it would be foolish not to acknowledge the contribution of Bengal to the leadership in Indian affairs during the first quarter of the present century, so it would be equally unwise not to recognise the fact that Bengal is no longer where she had been in the days of the great Victorians.

VIII. Annual Economic drain of Bengal due to failure of the Bengalis.

It is not necessary to pursue further. The last Census Report tell us that there are in Bengal 22 lakhs of non-Bengalis, i.e. Indians from other Provinces. They go home periodically either during the slack season or at intervals of a year or so

leaving substitutes from among themselves. If the East Indian Railway passenger traffic be examined it will be found that a constant stream of immigration is kept up. Very few of them bring their wives and children with them. (Cf. *ante* p. 425.) The Marwaris, Bhatias and a few others who are domiciled in Bengal live with their families generally in Calcutta. Of the 22 lakhs a deduction of 2 lakhs may safely be put down as women and children, i.e. non-earning members. Even a cooly or dhobi or shoe-maker or barber seldom earns less than Rs. 25/- to 30/- a month. If one were to turn the pages of the *Exchange Gazette* or *Capital* and note the daily transactions and also critically examine the "clearing house" he would have no difficulty in realising how much of the floating capital or fluid money and actual wealth of Bengal is in the hands of the Marwaris, Bhatias and other porsperous participants in trade, commerce and business, a good many of whom are millionaires.[24] The Bengali cuts a very sorry figure indeed.

I think it will be a fair estimate if Rs. 50/- per month be taken as the average earning of each member of this class, and multiplied by twenty lakhs the total comes to ten crores. In other words, 120 crores represents the annual drain of wealth of Bengal.[25] I have tried, as far as possible, to sub-

24 The Census Report of 1921 shows that 47,865 persons born in Rajputana Agency and 11,235 persons born in the Bombay Presidency were resident in the province of Bengal. Of the former not less than 12,507 born in Bikaner and 10,316 born in Jaypur were found in the city of Calcutta alone. The author of the Census Report pointedly remarks that there is a "clear indication that upcountry mercantile classes are taking a larger and larger part of the city's trade and it seems that they are doing the same outside the city also." He also attributes the increase in the number of immigrants into the province from Bombay as "due to the increasing influx of the mercantile classes hailing from that province."

Since the recent Swadeshi movement the agents of the Bombay (including Ahmedabad) mills are coming in larger numbers and securing the control of the 'cloth market' and are doing a thriving business.

25 The figure may appear incredible, nay staggering to many. In support and corroboration of it I can adduce direct evidence. The total

stantiate my statements with facts and figures. No accurate figures exist on which to base any definite estimate and I give my own guess for what it is worth. I am, however, often confirmed in my own estimate by opinions of experts which I did not come across until my own figures had been arrived at. It is by no means an easy task to give a scientific or exact estimate of the magnitude of wealth drained from Bengal to Bombay, Rajputana, Bihar, the United Provinces and the Punjab. But the figure offered here is an indication of the numerical region in which we ought to consider it.

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amount of money orders issued by the Post Offices serving the Calcutta Jute Mills during the year 1929 is given at Rupees one crore and seventy-six lakhs in round number.—*Indian Jute Mills Assoc. Rep.* 1930, p. 292.

A Bengali gentleman of position practically domiciled in Bihar writes me as follows :—

"I am grateful to you for the interest you are taking in the welfare of the Bengali residents in Bihar and other provinces. * * * * * Last month the post office of Chapra received ten lakhs of rupees from Bengal; it represents the net amount transmitted to the district of Saran alone.

"I give below the money order remittances from Bengal for three months :

January (1927)	...	Rs. 11,58,000
February. (,,)	...	,, 11,02,800
March (,,)	...	,, 9,37,901

The average for the three months thus works out to more than ten lakhs per month. On the other hand the monthly remittances from Chapra to Bengal will not exceed rupees thousand per month. The handful of Bengalis resident here can barely make both ends meet. Moreover, being domiciled here whatever we earn is spent here. * * * * * If, however, a teachership on rupees fifty per month is offered to a Bengali, at once an agitation is set up and the cry is raised : *Bihar for the Beharies.*" (English translation).

Under the caption : "Suction of the wealth of Bengal", the *Ananda Bazar Patrika*, in the year 1927 wrote : "In 1926 in the district of Cuttack alone four lakhs of rupees was remitted through the post office. It is necessary to add here that the Oriyas earn their livelihood in Bengal as cooks, menials, plumbers and chiefly as coolies. Hence the remittances to their homes are necessarily much less than those of the other non-Bengalis. The amount sent per money order, is, however, only a fraction of the actual remittances as much of their savings is carried in their purses when they go home."

Then again it is well-known that the Marwari and the well-to-do up-country people live on wheat-flour, dal, ghee, etc., all of which are imported from outside Bengal by themselves ; the Oriyas alone live on rice. So we may say whatever they spend finds its way back into their own pockets. Hence the Marwari or the Bhatia or the Punjabi, although they make their money and live in Calcutta, seldom add any wealth to Bengal nor is Bengal in any way materially benefited by their being residents of Bengal.[26] They might as well have been residents of Kamchkatka or Timbuctoo.

The Marwari who has spread his tentacles far and wide over Bengal is shrewd enough to realise that once the eyes of the Bengali are opened and directed to business, he (the Marwari) will have to lose his ground and be slowly ejected from the coigns of vantage he occupies. On this ground, i.e. from instinct of self-preservation, he will never consent to take in a Bengali youngman as an apprentice to his firm. It is sometimes possible for a youngman to be apprenticed to a European firm and by and by rise to high posts and even be finally taken as a partner but it is next to impossible for a Bengali to be an apprentice to a Marwari or Bhatia firm. Nor is this all. Scores of instances have come to my notice of young Bengalis starting business on a small scale who have been simply crushed out of their existence. The jealous Marwari competitor begins to undersell him till he is financially ruined. Hence it is, however paradoxical it may appear, the Marwari though nominally a resident of Calcutta, is hostile to the best interests of Bengal. In short, these non-Bengali groups or rather colonies, (who aside from their business have no particular roots or attachments to their place of settlement), fattening

[26] A correspondent in a local Journal (January 6, 1932) further improves upon it. Thus :

"For it is the general custom with non-Bengalis to have their own grocers, barbers, washermen, menial servants, which means clearly that no Bengali can reap the benefit of a pice from their (non-Bengalis) presence in Bengal. On the other hand the European firms in Bengal maintain chiefly Bengali staffs to run their offices and business."

on vested interests are a positive menace to the economic progress of the Bengali.

In fairness I am bound to admit that as far as jute and tea are concerned, they enjoy world markets for their products. The profits made by these two industries do not represent the drain of the wealth of Bengal, whereas the huge sum amounting to some one hundred and twenty crores, if not more, represents the financial exhaustion of Bengal. Every rupee earned in Bengal by a non-Bengali is derived from the snatching away of its equivalent amount of bread from the mouths of the unhappy children of the soil.

Whenever a youngman instead of rotting all his life as an ill-paid clerk or school-master is advised to take to business, one is at once confronted with the stereotyped reply: "Oh sir! where shall I get capital?" Ever since the starting of the Swadeshi movement (1906) scores of youngmen to my knowledge have been furnished with capital by persons of patriotic impulses; but they have almost invariably come to grief. One must go through a period of apprenticeship and 'devil' under a businessman; he must begin on a small scale, gather experience and even if he fails in the initial stage, he becomes weatherproof. Failures are the precursors of success. Our average youngman, if he fails at the outset, loses heart and reverts to the beaten track.

The common saying in Bengal is that the only capital the Marwari could command in his early career was लोटा कम्बल भी छातु (i.e., the brass pot and the blanket and flour and gram meal) and may be a few rupees only. He invaded Bengal in the pre-railway days and walked on foot all the way from the sands of Marwar; and even now he does the same, only he travels by railway. Whereas our youngman, easy going and victim of the all-besetting sin, indolence, wants his path to be strewn with roses. Carnegie's advice to the youngman is well worth quoting:

"It is the fashion now-a-days to bewail poverty as an evil, to pity the youngman who is not born with a silver spoon in his mouth; but

I heartily subscribe to President Garfield's doctrine, that 'The richest heritage a young man can be born to is poverty'. I make no idle prediction when I say that it is from that class from whom the good and the great will spring. It is not from the sons of the millionaire or the noble that the world receives its teachers, its martyrs, its inventors, its statesmen, its poets, or even its men of affairs. It is from the cottage of the poor that all these spring. * * * * Every one is agreed that it is the first duty of a youngman to so train himself as to be self-supporting". *The Empire of Business*, p. 125 and p. 130.

IX. Bombay's share in the Economic Drain. Bengal the Underdog.

The annual tribute which Bombay alone exacts from Bengal would amount to between 12 and 15 crores.

It is not easy to arrive at an exact estimate of the piece goods in the Bengal market which is the product of the large cotton textile industry located in the Bombay Presidency. According to the figures we have been able to compile, it appears that in the Calcutta port zone, no less than 1,252 million yards are imported from other zones against a production of only 134 million yards within the zone itself. The Calcutta port zone in respect of piece-goods is regarded to serve the whole of Bengal, the whole of Assam, the whole of Bihar and also a part of U. P. It is noteworthy that the indigenous mill piece-goods are used far more in the province of Bengal than in any other parts of the Calcutta port zone, the consumption in those areas, specially in Bihar, being very largely met from hand-woven goods. After careful reflection we estimate that no less than 1,000 million yards of Indian piece-goods out of 1,252 millions estimated by Mr. Hardy as having entered the Calcutta zone in 1927-28 were consumed in Bengal alone where, it is to be further remembered, the standard of living is higher than that in the other provinces owing to a larger element of educated persons. This 1,000 million yards consumed in Bengal may be valued at not less than 10 crores of rupees. Such a figure also agrees with the value of *Indian* piece-goods which entered Bengal in 1921, shown in official

report at near about 6 crores of rupees. For, we presume that since 1921 owing to the effect of the gradually progressive Swadeshi movement a larger and larger quantity of foreign piece-goods is being replaced by the output of Indian mills.[27]

Capital (Dec. 10, 1931) has some very significant remarks:

"So far as the cotton industry is concerned, as the construction of another 150 to 200 mills will exhaust the Indian demand, it is evident that if Bengal is to increase production to a level anywhere near its own consumption, it will have to "get a move on", or remain forever subordinate to the economic dominance of Bombay within whose boundaries most of the existing cotton mills are located. Bengal is not less advantageously situated than Bombay as a cotton manufacturing centre. The chief hindrances to progress being lack of capital and enterprise. Coal, cotton, labour and demand are available but British enterprise has followed other channels and in this industry the Western Presidency has been permitted, by a clever manipulation of its economic resources and political influence, to establish something in the nature of a monopoly, the final result of which will be to pour into its coffers all but a negligible percentage of the profits obtainable from the protectionist and swadeshi movements. In this respect the position is fairly clear. India normally has in recent years spent, on an average, about 60 crores per annum on imported cotton goods. That trade, for various reasons, is in process of rapid transfer to Indian producers, and all the indications point to most of the new mills required being located in the Bombay presidency. The outcome will be that Bombay will become the principal source of finance and control in relation to other industries, existing or prospective, in all parts of the Indian Empire. The process of economic penetration thus foreshadowed has, in fact, already begun although it is still, of course, in its early stages, and some years will elapse before Calcutta and the British community, in accordance with the Congress programme, having meanwhile been "expropriated"—becomes financially dependent on Bombay to the same

[27] Mr. M. P. Gandhi, Secretary, Indian Chamber of Commerce, Calcutta, a competent authority, in his *Indian Cotton Textile Industry* calculates that 15 crores of rupees worth of piece-goods enters Bengal from outside the province. I have, however, taken 10 crores as a moderate and safe figure.

It is but fair to state that the price of raw cotton should be deducted from the value of piece-goods supplied by Bombay, as Bengal does not produce cotton.

extent as, say Jamshedpur. If, however, Bombay extends and consolidates its present grip on the cotton industry, thereby establishing itself as the financial as well as the industrial capital of India, the consummation thus foreshadowed will be only a matter of time, and probably not more than a couple of decades. On this assumption, in the economic sphere, the best that Bengal can hope for under Swaraj is a change of masters".—*Ditcher's Diary.*

How the Bengalis have been exploited by the Bombay mill-owners and their patriotism traded upon by methods which will not bear close criticism will be apparent from the instructive dialogue quoted below between Mahatma Gandhi and a mill-owner :

'You know that there has been Swadeshi agitation before now?

'Yes, I do, I replied.

'You are also aware that in the days of the Partition we, the mill-owners, fully exploited the Swadeshi movement. When it was at its height, we raised the prices of cloth, and did even worse things.'

'Yes, I have heard something about it, and it has grieved me.'

'I can understand your grief, but I can see no ground for it. We are not conducting our business out of philanthropy. We do it for profit, we have got to satisfy the shareholders. The price of an article is governed by the demand for it. Who can check the law of demand and supply? The Bengalis should have known, that their agitation was bound to send up the price of Swadeshi cloth by stimulating the demand for it.'

I interrupted : 'The Bengalis like me were trustful in their nature. They believed, in the fulness of their faith, that the mill-owners would not be so utterly selfish and unpatriotic as to betray their country in the hour of its need, and even to go the length, as they did, of fraudulently passing off foreign cloth as Swadeshi.'

I knew your believing nature, he rejoined; that is why I put you to the trouble of coming to me, so that I might warn you against falling into the same error as these simple-hearted Bengalis."—Gandhi : *Autobiography,* vol. ii, pp. 568-70.

Let me now point out another instance as to how Bengal is being squeezed and her poor peasants exploited so that her sister province may benefit. It can be proved by facts and figures that Bengal has been sacrificed at the altar of over-protection given to the Tatas for the last 8 years in the shape of heavy import duty on all foreign corrugated sheets (steel) except

the British products which enjoy exemption under "Imperial Preference." Owing to the iniquities of present import duty Bengal has, in fact, become the double sufferer. For Bengal being the principal market for corrugated sheets her poor people, specially the suffering peasants of East Bengal, have to bear the brunt of an increased rate of import tariff. Not long ago the galvanized iron sheets used to be sold at Rs. 137/- per ton when the *ad valorem* duty was only Rs. 10/- per ton. Under the hue and cry of the Tatas the duty first rose from Rs. 10/- to Rs. 45/- per ton in 1925-6. Then it came down and remained stationary at Rs. 30/- from 1926-30. In 1931 again it suddenly jumped to Rs. 67/- per ton and in September 1931 on account of the 25 per cent. surcharges the import duty on galvanized iron sheets rose to Rs. 83-12 as. This rise is undoubtedly prohibitive and its effect on the consumers who are mainly the poor peasants of Bengal is simply disastrous. Now the Tatas, taking advantage of the prohibitive import duty, are callously maintaining the high price of Rs. 218/- per ton. The margin of difference is so very great that one feels constrained to demand an explanation from this state-aided industry as to its criminal indifference to improvement and economy. Then again on account of this prohibitive duty the import trade of corrugated sheets, which was mainly in the hands of the Bengali merchants before protection was given to the Tatas, is nearly ruined. Now they are being gradually ousted and the non-Bengali firms are usurping the trade as the Tatas are by no means keen on doing any business with the former. So my contention is conclusively proved that Bengal is being squeezed and crushed for the prosperity of the Bombay people. It is indeed an irony of fate that Bengal as is her wont has made herself a dumping ground for her sister province who comes and thrives here at her expense.

One would have justified the sacrifice which the people of Bengal are forced to make in helping the Tatas if it can be shown that having enjoyed protection and bounty for such a

long time they are able to set their house in order so that they can now stand the onslaughts of foreign competition. It is a well-known maxim of political economy that an infant industry may be given protection *but only for a limited period.* But surely such protection should not be tolerated *in perpetuity* as it encourages inefficiency and ultimately spells ruin on the economic condition of the country itself. This has amply been demonstrated in the case of the Tatas. It is generally held that the British administration is the costliest and most extravagant in the world taking into consideration the poverty of the people. But the Tatas have gone one better. Years ago the late Sir Dorab Tata boasted that his works paid higher remuneration to the imported foreign experts than that given to the Viceroy of India. And for this purpose Bengal has been bled white. My object here is not to discuss in detail the equity or iniquity of the increased import duty but to point the moral that protection and prosperity for Bombay mean a corresponding adversity for Bengal. The more so because the exploitation has become ceaseless and more and more ruinous to the people of Bengal. (Cf. *ante* p. 347).

Then again, take the sugar industry. On the recommendation of the Tariff Board a duty of Rs. 6/- per maund on white sugar imported into India has been levied and the indigenous sugar industry is rapidly expanding within this wall of protection. The sugar mills already in existence are paying dividends varying between 15 to 50 per cent. per annum. About 25 mills are being erected every year in Bihar and the U. P. and it is hoped that the entire capital will be recovered as dividends in a few years' time. As has already been shown, Bengal hitherto used to consume the largest fraction of white sugar imported into India (*vide* ante p. 401) and it naturally follows that the sugar manufacturers of U. P. and Bihar will find a ready market in Bengal. It is extremely unfortunate, however, that practically none of these sugar mills owe their existence to Bengali capital or enterprise. Here again the ineptitude of our people comes into bold relief.

It is well known that the inefficiency of the Managing Agents of the Bombay Mills—"the third generation of incapables"—has passed into a proverb. They too are in no hurry to set their house in order. Now we find the Indian Textile Association have approached Government for imposing a hundred per cent. duty on Cotton Goods imported into India from Japan ; their representations have been referred to the Tariff Board for enquiry and very probably a substantial increment in import duties will be sanctioned by the Government.

It is scarcely necessary to lay stress upon the fact that the Tata Iron Works, the textile industry, the salt industry as also a large proportion of sugar industry owe their existence to the enterprise of the Bombay capitalists. And as the Government in its present financial difficulties is but too glad to seize any opportunity which will enable it to fill its coffer at the expense of Indian tax payers, a policy of protection finds ready support, provided Imperial interests are not jeopardised. On a closer scrutiny it will be evident that a large proportion of this import duty is ultimately borne by the Bengali consumers. It is clear that the growth of a Trust System, which now holds America in the hollow of its hand, is also slowly spreading poison in our body politic. A tyrannous protective tariff as in the case of Bombay Industry has proved abortive so far as the improvement of her industry is concerned. Thus the unqualified and continued protection for the Bombay Industry is now lacerating the poor consumers of Bengal. In a word, owing to the helplessness of our own people, Bengal has made herself the underdog of the sister province of Bombay. In fact, Calcutta is fast becoming an industrial annexe of Bombay (and of Rajputana too).

Bengal has again become the helpless victim of the continuous and systematic drain of its wealth by the Insurance Companies—both Indian and foreign. *Indian* of course is practically synonymous with Bombay—so far as the Insurance Companies are concerned.

In several countries the state has imposed restrictions on

foreign insurance companies so that indigenous institutions may flourish without being hampered by unfair and unhealthy competition. Such restrictive legislation obtains in Mexico, Chili, Brazil, Bulgaria, Portugal, Denmark and several other countries. In recent times Turkey has enacted a law for the well-being of Turkish Insurance Companies. Even the small state adjoining India, *i.e.* Siam, has adopted strict regulations to check the incursions of foreign insurance companies. Self-respect and self-interest demand that Indians should insure with Indian companies.

In India unfortunately both the factors are absent. The latest Insurance Year Book contains the information that we contribute about Rs. 5 crores every year to foreign insurance companies as premium. We place this huge amount of money every year in the hands of persons whose interests are diametrically opposed to ours. Does it stand to reason that you should put your savings in the hands of a person with whom your relationship is in clash and conflict at every moment?

When, however, one looks at the question from the point of view of the *drain of the wealth of Bengal* by Insurance Companies one is simply staggered.

Below is given a list of the flourishing Indian Life Insurance Companies with their assets and activities.

	Total Ins. in force Rs.	New Business Rs.	Total Income Rs.	Total Funds Rs.
Asian ...	1,00,48,310	31,29,750	5,86,469	12,50,112
Bharat ...	5,15,72,387	1,50,18,542	27,73,574	96,91,566
Bombay Mutual	61,91,887	18,59,000	3,68,680	11,53,848
Bombay Life ...	1,58,96,029	42,62,000	7,38,529	21,52,432
Co-op. Assce. ...	31,22,553	4,19,500	1,86,073	7,43,025
East & West ...	28,36,833	10,40,000	1,67,032	2,95,549
Empire ...	9,41,72,753	1,27,00,000	59,59,842	3,28,41,279
General ...	1,69,66,444	60,00,000	9,29,449	20,11,115
H. Co-op. ...	3,00,00,000	1,01,11,000	14,78,000	75,00,000
H. Mutual ...	21,40,457	3,56,250	1,20,170	4,00,962
Indian Life ...	1,60,52,004	9,15,500	8,49,641	53,94,626
I. & Pruden. ...	1,15,54,738	36,19,000	7,06,026	19,05,702

	Total Ins. in force Rs.	New Business Rs.	Total Income Rs.	Total Funds Rs.
India Equit. ...	54,31,752	12,33,500	3,12,276	11,51,004
Lakshmi ...	1,66,18,620	66,27,350	8,25,166	9,32,879
National ...	5,18,05,027	1,00,34,400	31,69,000	1,35,00,000
N. Indian ...	1,25,96,554	23,71,500	8,89,029	29,87,493
Oriental ...	31,67,59,456	5,85,52,201	1,84,43,177	8,73,25,747
Peoples ...	27,57,750	17,38,500	98,477	793
United India ...	1,24,61,679	33,65,500	7,82,901	29,42,961
West India ...	1,00,83,474	22,31,750	6,17,118	18,57,639
Zenith ...	37,14,539	25,46,500	3,12,180	5,66,091

It will thus be seen that of the twenty one companies named above only three may be called purely Bengali concerns. It will however be evident on an inspection of the table that they count for little. The really successful ones hail from outside Bengal ; practically from Bombay. The most flourishing of the Bengali concerns is, I understand, largely patronised by non-Bengalis. The newly started journal, the *Insurance World* very pertinently observes: "It is almost a well known fact that Bengal contributes the largest share in the total new business written in India every year. Almost all Insurance companies transacting business in India look to Bengal as the most fertile soil for planting agencies and branches and many of them get as much as two-thirds of their total new business from this province alone. This is no doubt a tribute to the people of the province with regard to their advanced ideas in grasping the principles of Insurance" (vol. i, No. 3). But at the same time it is a positive proof of lack of business capacity of the Bengalis.

So far as the continuous and systematic impoverishment of Bengal is concerned it does not matter much whether her wealth is drained away to foreign lands or to provinces outside Bengal.

Bengal again has been the first and foremost in realising the importance of insuring lives. Of the five crores of rupees contributed by India to foreign insurance companies the major portion is evidently from the pockets of the Bengalis. The

twenty-one Indian companies mentioned above also suck away several crores as owing to the recent Swadeshi movement foreign Insurance Companies are at a discount. It is thus clear that a voluntary tribute of a few crores a year is paid by Bengal to Bombay as the price of her helplessness and ineptitude in business matters. The total amount of tribute paid this way during the last half-a-century would amount to a huge sum.

I am indebted to Mr. S. C. Ray for the sub-joined table, which shows at a glance the miserable position of Bengal.

PREMIUM INCOME.

	1929.
Bombay Companies	Rs. 2,54,33,000
Bengal ,, ...	,, 65,85,000[28]
Madras ,, ...	,, 12,72,000
Punjab ,, ...	,, 41,60,000
U. P., Ajmere, Delhi Companies ...	,, 11,93,000

LIFE FUNDS.

	1929.
Bombay Companies	Rs. 14,03,27,000
Bengal ,, ...	,, 2,70,22,000[29]
Madras ,, ...	,, 46,23,000
Punjab ,, ...	,, 1,28,66,000
U. P., Ajmere, Delhi Companies ...	,, 24,09,000

It will be seen at a glance that *purely* Bengali companies represent only 35 lakhs in Premium Income and only 1¼ crores in Life Funds. In the recent volume of the 'Investor's Review', one finds how the insurance companies live and thrive. A large amount of capital lies in the hands of the Insurance Companies and you find a major proportion of the funds invested

28 Deduct "National" (practically non-Bengali, as it has passed out of Bengali into Gujrati hands) about 30 lakhs—so purely Bengali business comes to 35 lakhs of which one company alone represents 23 lakhs.

29 Of which nearly 1¼ crores represented by "National," therefore pure Bengali concerns represent only 1¼ crore.

is generally utilised in England and America, etc., for the development of Railways, Electric Power Companies, Gas Companies, Iron and Steel Companies, Coal concerns and shipping and Telegraphic concerns. There are many nation-building departments in which funds of the insurance companies in Great Britain have thus been invested. They are, therefore, fructifying sources and they are able to build up the industrial resources of the nation and make the country more competent from the industrial and manufacturers' point of view. In the United States 35 per cent. of the funds is invested in railways and 30 per cent. in immovable properties and 9 per cent. only is deposited in Government Securities. The major portion of the premiums and funds of the Bombay Companies as also a considerable portion of the foreign ones are derived from Bengal, which are invested for the development of their *own* indigenous industries. The drain under both the items amounts to 2 to 3 crores at least ; it has thus become a serious handicap to our economic freedom.

The following letter affords ample food for reflection ; the writer, who is unknown to me, has evidently grasped the gloomy outlook :—

INTER-PROVINCIAL DISCRIMINATION.

(To The Editor of *Capital*, Dec. 10, 1931.)

Sir,—In "Ditcher's Diary" for the week ended 3rd December, 1931, the pamphlet issued by Sir P. C. Roy and others under the caption "Swaraj and Economic Bengal" comes in for a fairly lengthy review. In your reasoned criticism, however, one fails to find any suggestion whereby Bengal can save herself from economic ruin. Inter-provincial discrimination is to be avoided if possible, and the very idea leaves no doubt a sour taste in the mouth. But I say again, is there any alternative?

The chief problem of Bengal is now to provide employment for her unemployed young men. The medical profession, the Bar, the clerical line,—all are awfully congested. The only outlet lies in the direction of the development of industries. With a population of over five crores, Bengal,—which is a hot country,—requires a very large quantity of cotton piecegoods to clothe herself, she also consumes a huge quantity of salt. She should try to start at least 40 or 50 cotton mills, and a

dozen salt factories, and if she is able to do so, she must grant protection for at least a decade or two, to her nascent industries.

The imposition of a terminal tax, in the circumstances, is not only legitimate but also imperative. Bengal does not want to shut out all competition from the other provinces in India, but what she wants is to allow her own industries a reasonable opportunity to save themselves from being overwhelmed by outside attacks on the very threshold of their careers. If Bombay complains, she ought to be reminded about the shameless way in which she exploited Bengal at the time of the war. She put up the prices of her cotton piecegoods by 200 per cent. and paid huge dividends to her shareholders. Bengali women unable to purchase clothes committed suicide to hide their shame. Recently a duty was imposed on salt imported into Bengal, to benefit Bombay and Aden, in the teeth of a spirited opposition.

Bengalees, whatever their faults, are an intensely patriotic people, and to them is to be traced, in a great measure, the prosperity of the cotton industry in India and in Bombay in particular; but has Bombay reciprocated? Bengalees are swadeshi to the core, and if they say "we shall grant preference to our own products first" then none, and least of all the British who are proposing 100 per cent. tariff in their own country, have any cause to complain that the remedies proposed are Chauvinistic.

Yours faithfully,
NRIPENDRA K. GUPTA.

It is thus evident that unhappy Bengal lies vanquished, bleeding and prostrate at the feet of her non-Bengali economic conquerors; and alas! no efforts are made even to stanch the wound or stop the hæmorrhage!

X. INDEPENDENT AND AUTHORITATIVE OPINIONS.

I would now give some notes and observations of persons qualified to speak with authority on this subject, who have independently come to similar conclusions.

An eminent counsel and ex-pupil of mine, who has an extensive practice in the original side, High Court, and who has thought much about the failure of the Bengalis in business writes me as follows on his own initiative:—

I hope you will not mind my writing at length to you; I feel a gnawing pain in my heart, when I find that the Bengalis, with better brains than their rivals, are being badly beaten everywhere.

I have examined and cross-examined dozens of Marwari business-men, I have intimate knowledge of their capacities and limitations, as their legal adviser. My very definite opinion is that the Bengali even in his present decayed condition is far more intelligent than these people. I have often tried to analyse and find out the secret of Marwari success, and their grip over Bengal. They have no education, no technical knowledge, and suffer from most tyrannical and narrow-minded social customs and laws. Why do they then succeed? My own belief is that, as between themselves, they show an amount of trust and co-operation, which is incredible to the outsider; and which I do not find in Bengalis.

Thousands of rupees, even lacs, pass from hand to hand without any document, even a receipt. Packets of jewellery, uncut diamonds and pearls, pass from broker to broker and underbroker and no receipt is taken.

Secondly, they do not allow their energies to be frittered away merely in search of sensation and excitement. I do not know what can be done. In my own way I tried to start a dairy for training young *bhadralogs*. I and four friends raised the sum of Rs. 35,000/-. To cut a long story short, the amount of dishonesty, and disinclination for work, was appalling. The whole money, Rs. 35,000/-, was lost, and we had to find another Rs. 5,000/- to clear off debts.

In another venture I lost Rs. 5,000/-, and the same story was repeated. I undertook those ventures for no gain and in fact if the ventures had been successful, I would have made no profit, as I had bargained that they would have my money for five years, and then gradually repay, without interest. I know it is all very well to offer these criticisms—but I cannot find an answer to the question, "What can be done?"

You have devoted your life to the work, whereas I am leading a life of luxury. You are in a much better position to judge of these matters. If we could improve agriculture and trade, political power will come of itself—but all our energy is being wasted over reforms and Ministers and votes. Those worthless matters have acquired importance which is not legitimately due to them.

Probably I am behaving foolishly in making a series of statements of facts which are obvious and on which I have thrown no light—I trust you will excuse my incoherence.

Mr. B. M. Das of the National Tannery and also of the Government Tanning Research Institute, who as a Tannery

expert, is perhaps unrivalled in India, has favoured me with his experienced views on the failure of the Bengalis :—

I have received your letter asking me to give you my impression about the business capacities of Bengalis in comparison with those of non-Bengalis.

You may remember that I joined the concern in which I am still serving about 15 years ago practically fresh from college. I had no previous experience of the business dealings of the traders of the various communities of cosmopolitan Calcutta. I therefore started my work with an open mind without any bias against any community. On the contrary, being a Bengali myself, I had a natural confidence in, and a pardonable preference for, dealing with the traders of my own community.

I, however, discovered soon that in the line of business which I pursued there were very few Bengali traders. Most of the men with whom I had to deal were non-Bengalis. I was not pleased with this state of affairs and wished that there were Bengalis in the trade. So I utilized every opportunity to induce Bengalis to deal with us in our commodity and encouraged such as we found willing, with all facilities. My feeling was that we would be on a safer ground if we dealt with the Bengalis than with the various non-Bengali merchants. But a few transactions with the Bengali merchants soon disillusioned me.

During the last 13 years, I have had dealings with the Punjabi Mahammadans, Khojas, U. P. dealers, Bihari Mahammadans and Bengalis and have formed some estimate, in my way, of their business capacities and trade dealings. This estimate is now my guide in business. I will take only one community to illustrate my point.

Punjabi Mahammadans.—I have found them honest, above-board and straightforward. They trust you and want to be trusted in return. They are very hard-working men of extremely economical habits.

During the last 15 years I have sold to the Punjabi dealers goods worth about a crore of rupees, mostly on credit. The arrangement was that they would pay 60 days after the delivery of the goods. I have found them usually punctual in payment. If for any untoward circumstance they cannot meet the payment on due date they give timely intimation and ask for an extension of the credit. I have never had any occasion to go to court to realise an outstanding bill from a Punjabi Mahammadan merchant.

They never repudiate a contract, even if they have to lose by keeping to its terms. To return goods once sold to them on the pretext of inferior quality is very unusual with them. They would ask for a rebate and we are always satisfied with a reasonable award.

They will seldom accept service. Even the poorest of them would rather hawk merchandise in the streets of Calcutta than serve. Usually they start work at 6 O'clock in the morning and are in harness till 10 P.M. Half an hour in the middle of the day and another half an hour in the evening are their recesses for their spare meal. Stuffing the stomach with excessive food is unknown to them.

Their living is simple and inexpensive. Twenty or thirty of them live in a rented house which they use for sleeping only. They dine wherever they happen to be in course of their daily work. Our schools and colleges do not help their culture. So when a Bengali *Bhadralok* launches in business he is ill-equipped for it and, going in his casual, lazy and improvident way, so makes a mess of things and gets stranded. His mediæval mode of life, his indolent disposition, his fear of strenuous work, his reluctance to face hardship and difficulty, his early wedded life and above all his joint family of which he is a member are the trammels which overpower him. No sooner does a youngman start a small business than his family cries out for help and support from him. The young merchant spends and soon exhausts not only his small capital but also his creditor's money and eventually goes out of business. It is a sad tale but it is true.

To be able to achieve success, business traits must be developed. Youngmen must be hard-working, trustworthy, straightforward, of simple habits of life and free from family obstacles, which at present hang round the necks of most of them like a mill-stone.

A Professor of Economics informs me—"A few years ago I asked a prominent jute merchant of Dacca why the Bengalis were being ousted from the inland trade in Jute; he gave two reasons: (1) Lower standard living of Marwaris. (2) In dealings with his own community, the Marwari was more honest than a Bengali." The same remarks apply, I am afraid, to other trades as well.

Mr. Jogesh Chandra Mukherjee, who according to his own account, started his career as a cook on rupees five per month and is now the managing Agent of the Calcutta Builders' Stores Ltd., has recently contributed a series of articles to a local vernacular journal entitled "The place of the Bengali in the internal trade of Bengal." He draws a doleful picture; I cull a few items from it.

Thirtyfive years ago the trade in *ghee* (clarified butter) and sugar was mainly in the hands of the Bengali; to-day he has been almost

entirely ousted by the Marwari. In the trade in onion and garlic also the Bengali has lost his position. The onion which comes from the Bombay, Madras and Behar provinces is the monopoly of the non-Bengali; the produce of Bengal proper is also being controlled by the non-Bengali. Eight or ten years ago there were fifteen to sixteen depots of the produce in Beliaghata (Calcutta); at present there are barely six or seven depots. Wheat flour is slowly entering into the dietary of the Bengali—at least of the well-to-do classes. This important article of food is under the thumb of the non-Bengali (mainly Marwari). There are hundreds of small mills driven by electric power scattered throughout the lanes and bye-lanes of Calcutta; they are managed by ignorant up-country men, who began their career as menials or coolies. Then there are three large-scale flour mills each of which turns out eight hundred maunds daily; of these only one is owned and managed by a Bengali. The trade in the flour, which is despatched to the different centres of the country, including the districts and sub-divisions, is entirely a non-Bengali affair. Every day several waggon-loads of pulses are imported from Behar and the United Provinces. This business is also a monopoly of the non-Bengali. Then again, there is a big local trade in *dal* (split pulses) in the Ahiritola quarter of the town; this is carried on entirely by the U. P. men. The oil seeds trade is also a non-Bengali monopoly. Mustard oil is an important article of food of the Bengali—ghee being a luxury of the comparatively affluent classes. Of the fifty million inhabitants of the province barely one million can afford the latter. Thirty years ago all the mills for the extraction of oil from mustard and other oil-bearing seeds were owned and managed by the Bengalis. Now they are fast passing into the hands of the non-Bengali. Cocoanut oil again worth a crore and a quarter enters the port of Calcutta from Cochin, the Andaman islands etc. This business is in the hands of the Gujratis and the Memons of Cutch.

Then again Mr. Mukherji remarks:—

Schools and colleges are not the places to learn trade and business; there one may learn the underlying principles, including political economy and book-keeping, but everywhere in the world, one must begin on an humble scale and go through the rough and tumble of life courting failures if necessary, which are the real precursors of success. But the Bengali is indolent and easy-going, he fights shy of initial difficulties and risks with the result that he has been slowly but surely elbowed out by the plucky and adventurous non-Bengalis.

A kind of mental paralysis seems to have overtaken the Bengali race. Of late years an extensive trade in potato has sprung up; large

quantities are imported from Shillong, Darjeeling and Nainital. But the Bengali is unequal to the task of manipulating any business on a large scale. No wonder that the supply of potato is passing into the hands of the Marwaris and U. P. men. (English translation).

Problem of Unemployment so far as it concerns the middle class Bengali only.

Mr. Rajshekhar Bose, under whose able management extending over more than a quarter of a century the Bengal Chemical and Pharmaceutical Works has attained its present prosperous condition, has, at my request, summed up his experiences in a memorandum reproduced below:—

The Middle Class Bengali—old and new.

A hundred years ago, the middle class in Bengal consisted almost entirely of the higher castes. The occupation of this class was much less varied than at present and was generally confined to zamindary, land farming, service under zamindars, agriculture and money lending. A large number of Brahmins earned their living as priests or pandits. The Vaidyas practised medicine as a hereditary profession. Only a few were employed in the public services or in some European merchants' office. Trade and industry were practically confined to inferior castes. The *bhadra-lok* had a contempt for the trader and artisan, and his social aloofness kept him in ignorance of the pursuits of his thriving merchant neighbour. The average middle class Bengali of those days was not better off than his present day successor, but he lived a more contented life as his habits were simpler and wants fewer.

When the present system of education was first introduced, the middle class Bengali, aided by his hereditary culture, was the first to take advantage of it. He at once found that the new knowledge not only benefited him intellectually, but opened up new sources of earning. In those early days it was easy for him to secure a decent clerical post even with very scanty educational qualifications. His predecessors had been used to clerical service under the zamindars and the new occupation quite fitted in with the traditions of his class. Some of his more progressive bretheren were fortunate in securing posts in the higher public services, while the boldest of them went a step further and adopted some of the independent learned professions and were successful, there being few competitors.

Thus the new system of education immediately resulted in an increase in the earning capacity of the middle class Bengali. He was

a pioneer in the field and his services were in demand even in the other provinces. His newly acquired wealth and experience of city life gradually effected a change in his standard of living. His neighbours noticed the change and eagerly sought the new path. Members of the "inferior" castes were soon attracted and leaving their hereditary vocations, swelled the ranks of service or snug berth seekers. At the present time, whoever learns a little English and adopts the manners of the *bhadra-lok*, is regarded as a member of the middle class.

It will be seen that the middle class Bengali of to-day has a much wider choice of occupations than his predecessors. Yet he has an inherent predilection for particular classes of occupations only. The average *bhadra-lok* considers it beneath his position to adopt a calling in which his learning, however slight, is not indispensable. He will eagerly accept a clerkship however poorly paid, or patiently await his chance in a congested bar; but he cannot bear the idea of being a grocer or contractor of labour or dealer of second-hand wares. He has a supreme contempt for the calling of the uneducated but thriving up-country merchant, but he has not the least objection to serve the latter in the capacity of a clerk. When hard pressed, he may break convention and adopt some 'unlearned' profession; but even then he is careful to select one which is comparatively new and not traditionally associated with the "inferior" castes. He can thus be a motor car driver or watch repairer or even a mechanic but never a tailor, carpenter or smith.

There are of course exceptions, but what has been said above is true of the average middle class Bengali. This class is fast growing by influx of members from the lower social strata and the struggle to realise a steadily increasing standard of gentility is becoming keen. The mentality of the class favours only a limited number of occupations, which cannot provide employment for all. In the old days, it was quite normal for the earning member of a joint family to support a large number of idle relatives. But with the rise in the standard of living, the earner has become exclusive and less mindful of the needs of his relatives. The result has been a gradual break-down of the joint family system, which again has reacted on the present situation by setting free a large number of members, who finding idleness no longer pays, are compelled to seek employments.

THE CAUSES OF THE PRESENT STATE OF UNEMPLOYMENT.

The principal causes may be grouped thus :

(i) The inherent predilection of the members for particular classes of occupation, viz., (a) the learned professions, (b) occupations for which the chief qualification required is ordinary school or college education, (c) callings not traditionally associated with the "inferior" castes.

(ii) Inadequate facilities for learning new vocations; want of new careers.

(iii) Ignorance of mercantile pursuits due to aloofness from trades people.

(iv) The breakdown of the joint family system which has turned a large number of idlers into seekers of jobs on miserable pay.

(v) The growth of the middle class by absorption of members from the lower strata, who have adopted the manners as well as the narrow outlook of the *bhadra-lok*.

(vi) Competition with foreigners and people of other provinces who are better fitted by their character and habits of life for a business career than the Bengalis.

Remedial Measures.

It has been repeatedly suggested that the University or the Government can solve the difficulty by introducing vocational education on a wide scale. There is already a fairer provision for teaching the learned professions. The Bengali has had a surfeit of legal training but there is still room for extending the teaching of medicine and engineering. These subjects however are suitable only for the highly educated fraction of the community. For members of middling qualification, there are several schools for teaching book-keeping, stenography and other clerical work. There are also a few institutions for teaching agriculture, mechanical engineering, surveying, drawing, motor car driving and repairing, telegraph signalling, weaving, tanning and other technical subjects. Such institutions are doing useful work and attempts should be made to multiply them. It has been proposed to introduce technical training as an adjunct to secondary education, but the subjects usually recommended are remarkable for their lack of variety, being carpentry, elementary mechanics, and at the most, spinning and weaving. Nothing can be said against such a choice, if the object be to add to the general culture by inducing habits of neatness and skilfulness in the student. But to expect that the latter will profit by his training by adopting the career of a common artisan is to belie the definition of the *bhadra-lok*. It has also been suggested that the University should open technological classes for imparting scientific training in the modern industries. Unfortunately, the demand for men with such training is still small in this country as there are so few manufacturing industries. It is idle to say that the student after finishing his course should be able to start an industry on his own initiative. It is not class-training that can build up a business. A few enterprising and resourceful individuals may attain success, but in the majority of instances the raw young

technologist would be likely to court failure by launching into business without adequate backing.

What then should be done? Let there be by all means a wider provision for training youngmen to crafts and industries if only in anticipation of suitable openings in the future. But let not the rising generation be deluded into the belief that technical education alone shall bring about salvation, just as their predecessors believed that ordinary school or college education is the surest way to earn a living. The youngmen should realise that although it is good to know how to produce a commodity, it is very often more profitable to know how to sell it. It is high time that the middle class Bengali should direct his attention to the doings of the vast army of immigrants from the up-country, who with no other asset than an inherited trading instinct and plenty of dash, are pushing their way into the remotest corners of Bengal and earning a substantial living by capturing the internal trade.

The *bhadra-lok* should be cured of his hankering after the learned professions and clerical services. He should be initiated into the mysteries of trade in its various phases. Once he gets over his awe and repugnance for an unknown career, it should be easy for him to find a place for himself in the diversified paths through which commodities pass from the producer to the consumer. He may be a retailer or contractor of goods or services, an organizer and employer of craftsmen or an intermediary between the merchant and retailer. He may commence as a small trader and satisfy his highest ambition by rising to the position of a big merchant. He need not discard a business be it as humble as that of a sweetmeat vendor or grocer. He can turn his education and refinement into account by providing better service for his customers and transforming the pettiest shop into an attractive establishment.

Such a change of outlook cannot be brought about quickly. It will take some time to overcome the prejudices of the middle class and to initiate them into occupations with which they are not familiar. Training classes can impart only an elementary knowledge of a calling, but practical experience can be acquired only by association with men actually engaged in the calling. In the case of the majority of trades, class-training is impracticable. The function of schools and universities should not be over-assessed. The family atmosphere should be so transformed as not to put an exaggerated value on university degrees. Youngmen have now realized that degrees do not help much in after-life, yet they prolong their studies listlessly, to put off the unpleasant day when they will be called upon to choose a livelihood. Let the degrees be reserved for picked scholars only. (*Vide ante* p. 262). The mediocre

youngman, instead of frittering away his energies and his father's money on aimless college education, can derive more benefit by serving as an apprentice to some tradesman for a few years after passing his Matriculation.

As a sequel to the insane craze for degrees the observations of Mr. Bose, who writes from his vast practical experience, are deserving of close attention. Our youngmen simply drift away aimlessly and do not bestow a moment's thought on the suicidal course they pursue. Strictly speaking, their guardians are more to blame in this respect. When our young hopefuls have taken the B.A., or B.Sc. degree they invariably proceed to the M.A., or M.Sc., in order to put off the unpleasant day when they will be called upon to face the stern realities of life, forgetting all the while that the higher they go up the ladder, the more helpless and incapacitated they become when confronted with the world's battlefield.

Hazlitt once wrote an essay on *The Ignorance of the Learned* and declared that "anyone who has passed through the regular gradations of a classical education and is not made a fool by it, may consider himself as having had a very narrow escape. Certainly the man of learning, * * * * starts with a heavy handicap when he comes down into the realm of affairs." Thus the unfortunate degree-holders often find themselves as so many mollycoddled helpless creatures in a strange land.

Nor is this all. I have already said that those alone should seek the portals of the University, who have got the real vocation for it.

The M.Sc. Examination of the Calcutta University is just concluded (August 9, 1932). 21 candidates appeared in Chemistry ; 17 in Physics ; 38 in Pure Mathematics and 35 in Applied Mathematics. In Chemistry 11 left off after sitting for a day or two ; in Physics 10 did the same ; in Pure Mathematics 9 left off ; while in Applied Mathematics 11, including all *regular* students, were frightened off after sitting on the stool for the first, second or third day. In all, some 40 candidates out of 111 made themselves scarce as pointed

out above. It is to be borne in mind that the expenses of maintaining each M.Sc. student in Calcutta cannot be less than Rs. 40/- to Rs. 50/- per month. So each student during the two years of the academic course must have cost his guardian on an average Rs. 1,000/- ; in other words, the 40 students must have spent or mis-spent Rs. 40,000/-. But the cash money squandered is the least part of the tragedy. The appalling wastage of the energies of the manhood of the nation is staggering.[30]

Then again the Bengali is even now found anxious to go to England and the Continent of Europe, specially Germany and also the U. S. A. for the glamour of a foreign degree or diploma (*Vide* ante, p. 310). He mortgages his ancestral property or is not ashamed to sell himself to the highest bidder in the matrimonial market for this purpose. But on his return he invariably finds himself at sea. He is adventurous by fits and starts ; he might be prevailed upon to go to British Guiana as an interpreter to the Indian labour corps ; he may go to Hongkong as a doctor to the Indian Army or as a medical officer to any sea-going vessel. He, however, soon gets homesick. The Guzrati, the Cutchi, or the Sindhi, on the other hand, *illiterate though he be,* is found as a trader or thriving merchant in Singapore, Hongkong, Kyoto, Yokohama, Honolulu, San Fransisco, Kenya, Egypt and Paris etc.

In conclusion let me repeat once again that the Bengali unfortunately has given too wide a scope to idealism at the expense of practicality. The rapid means of communication has brought him into touch not only with the European but also with the Chinaman, as also with the non-Bengali—the Marwari, the Gujrati, the Bora or Nakhoda, the Parsi, the

30 It is the more deplorable that of the 23 Applied Mathematics candidates who sat for the whole period of the examination, there were *no regular* students, *i.e.*, those who appeared for the first time. Those who do not sit for all the days or who get plucked, often reappear as *casual* students the next year, thus imposing upon their unhappy guardians an additional burden.

Paschima (the Behari or the U. P. man), the Punjabi, the Oriya, the Cutchi, the Sindhi. The ground is being cut from under his feet in every walk of life and activity. His cook, his domestics, his ferryman, his cooli, often his labourer in the field, his shoemaker, his cobbler, his *dhobi*, his barber—all these are recruited from outside his province. The internal trade of his land is slipping out of his hands as also his export and import business. In a word, as far as the bread-earning problem is concerned, the Bengali is hopelessly floundering in the land of his birth. The twenty-two lacs of non-Bengalis earn and for the most part carry away an enormous amount of wealth which may be calculated at the almost fabulous and incredible sum of between 120 and 150 crores a year ; whereas the Bengali has learnt to look upon a University degree as the *summum bonum* of his ambition and the failure to win it is, according to him, tantamount to the *ruin* of his career (ante p. 281). He has been traditionally averse to commercial or industrial pursuits as he looks upon them as something derogatory. No wonder that the market is flooded with starveling degree-holders. No wonder whenever an advertisement appears in the "wanted" column of a newspaper for a post carrying rupees fifty to hundred per month, hundreds of applications come pouring in ; if the post fetches a salary of rupees one hundred and fifty and upwards the number of applicants is legion. It is this heart-rending state of things which has been almost a source of agony to me during the last quarter of a century and more. In fact, the failure of the Bengali in the economic world has been my obsession so to speak. Hence it is that a portion of my energies has been diverted towards the awakening of my countrymen to this weak point in his traits.

The misfortune of Bengal is that she has allowed herself to be all but ousted from her trade and commerce, internal and external. Her intelligentsia, barring a handful of successful lawyers and placemen, are now reduced to a race of ill-paid and ill-fed school-masters and quill-drivers ; while taking advantage of her ineptitude and weakness, the powerful

and enterprising foreign and non-Bengali traders and merchants have captured all her avenues of wealth. Bengal to the foreigner or to the non-Bengali is the land of opportunity; he reaps here a golden harvest. But the Bengali is knocking about here and there for a morsel of bread.

The failure of the Bengali not only to keep pace with the extension of the export and import trade but also to participate in mercantile transactions has begun to tell disastrously on his moral stamina. A self-made businessman—the architect of his own fortune—has his faculties wonderfully developed. His administrative abilities are called into full play. He resembles more or less an empire-builder. Whereas a lawyer or a clerk or a school-master, however efficient he may be in his own line, is often found to be an ignoramus when he has to deal with any matter outside his own province; off his own element he is as innocent and ignorant as a baby; moreover his outlook is apt to be narrow and circumscribed. In a word, he cuts a pitiable and sorry figure when he comes out of his own. Of late years in the Imperial Assembly the Bengali has been relegated to a position of non-entity. This is the testimony of impartial observers in the "Stranger's gallery". When financial matters come up for discussion the Bengali representatives, be it said to their credit, follow the adage: "Speech is silvern, but silence is golden", or perhaps they profit by the counsel of the sage Chanakya:

दूरतो शोभते मूर्खः यावत् किञ्चिन्नभाषते

(The ignorant man shines well at a distance so long as he holds his tongue).

Naturally a Dalal, a Pursottamdas Thakurdas, a Kalyanji Narayanji, a Walchand Hirachand, or a David Sassoon, or a Birla or a Khaitan being in actual touch with the world of business and the money-market is more favourably situated to give his opinion on the knotty currency problems. The Bengali Professor of Political Economy in our colleges with his knowledge derived only from text-books is more or less theoretical. A.

college-bred man is not necessarily in a position to give correct views on the sale of the reverse council bills. Moreover, the successful businessman with a good balance to his credit in his bank stands erect ; can afford to give his opinion courageously, irrespective of the frowns and smiles of the powers that be, a thing often at a discount in a subject race. He is not tempted to play the part of "Mister Facing-both-ways". He need not vary his doctrine to the fashioned hour. A race of clerks and office-seekers and place-hunters on the contrary has always to assume an attitude of servility. He learns to perfection the arts of a sycophant and tale-bearer. His moral stamina naturally suffers deterioration.

Paradoxical as it may seem the more a Bengali shows his aptitude for original work in arts or sciences the more helpless and incapacitated he becomes for earning his livelihood. One fights shy of taking him even as an apprentice as he talks big and suffers from swelled head. He is also reluctant to go through a period of apprenticeship commencing at the lowest rung of the ladder. The average college-bred youth thinks that to be a businessman he must have a secretariat table and an electric *punkha* whirling over his head and a motor car at his office gate. He expects at the very start to have everything made nice and easy for him, with the result that he often ends his career as a miserably paid clerk or as a suicide.

CHAPTER XXVII.

Caste System—Its baneful effect on Hindu Society.

I.—Wide social barriers between the literary and cultured classes on one side and farmers, artisans, and businessmen on the other—fruitful sources of domestic dissensions.

Much is said and taken for granted about the influence of heredity. Caste-ridden India would seem also to furnish abundant proof of certain qualities being confined to persons who can claim blue blood in their veins. In modern India since the spread of Western ideas and education, it is the Brahmins of Poona and Madras, the Brahmins, Vaidyas and Kayasthas of Bengal, as also the "Pandits of Kashmir" domiciled in the U. P., who have produced the most prominent figures in the fields of literary, social and political activity. Sir T. Madhava Rao, Ranga Charlu, Justice Muthu Swami Iyer, Bhasyam Iyengar, Ramanujam, the great mathematician, Ram Mohan Ray, Iswar Chandra Vidyasagar, Bankim Chandra Chatterjee, Michæl Madhusudan Datta, Justice Dwarka Nath Mitra, Keshub Chandra Sen, Surendra Nath Banerjee, Vivekananda, Rabindra Nath Tagore, and a host of others fully bear this out. The disadvantages and drawbacks of the caste-system appear here in their naked deformity. In Bengal out of a population of 50 millions, Brahmins, Vaidyas and Kayasthas number about 2½ millions ; in other words, the intelligentsia are practically confined to or rather recruited from only 5 per cent of the population. In England on the other hand, a Churchill risen from the ranks, as hero of Blenheim, is promoted to a Dukedom, a Pitt becomes an Earl of Chatham ; in the literary world we find the son of a butcher blossoming into the immortal author of

Robinson Crusoe, a tinker in jail writes the *Pilgrim's Progress*.[1] France also furnishes similar examples. The mother of William, Duke of Normandy, afterwards William the Conqueror, was a tanner's daughter. The father of the great Pasteur was also a tanner. Napoleon's boast was fully justified, namely that every private carried the Field-Marshall's baton in his knapsack. William Carey, the great missionary, was a cobbler and Josef Stalin, one of the makers of modern Russia, in his early days "cobbled shoes to pay expenses".

There seems to be a world of difference between the small farmers, weavers, barbers, shoe-makers, cobblers in Western countries and their counterparts in our country. Even towards the end of the 18th century and up to the middle of the 19th when no State organisation existed for making primary and

1 Buckle gives a list of men who rose from the ranks during the Civil War; we can make room for only a few brief extracts :

"As the Reformation was aided, not by men in high ecclesiastical offices, not by great cardinals or wealthy bishops, but by men filling the lowest and the most subordinate posts, just so was the English rebellion a movement from below, an uprising from the foundations, or as some will have it, the dregs of society. The few persons of high rank who adhered to the popular cause were quickly discarded, and the ease and rapidity with which they fell off was a clear indication of the turn that things were taking. Directly the army was freed from its noble leaders, and supplied with officers drawn from the lower classes, the fortune of war changed, the royalists were everywhere defeated. * * * * The tailor and the drayman were, in that age, strong enough to direct the course of public affairs, and to win for themselves a conspicuous position in the state. * * * * The three principal and most distinguished members (of the fifth-monarchy) were Venner, Tuffnel and Okey. Venner, who was the leader, was a wine-cooper; Tuffnel, who was second in command, was a carpenter; and Okey, though he became a colonel, had filled the menial office of stoker in an Islington brewery.

Nor are these to be regarded as exceptional cases. In that period, promotion depended solely on merit; and if a man had ability he was sure to rise, no matter what his birth or former avocations might have been * * * * * Skippon, a common soldier who had received no education, was appointed commander of the London militia; he was raised to the office of sergeant-major-general of the army; he was declared commander-in-chief in Ireland, and he became one of the fourteen members of Cromwell's Council".—*Hist. of Civil. in England.*

secondary education available to the masses, remarkable men had been known to spring up from among the ranks in Europe. Hargreaves and Arkwright, Telford, Robert Burns, Hugh Miller, and several others had to earn their livelihood by hard labour, and yet by dint of their own efforts they rose to eminence, each in his own sphere. Our weavers have always been proverbial for their crass ignorance and stupidity.[2] The father of Andrew Carnegie was a weaver in pre-machinery days and yet we find education and culture of a sort prevailing in his family. Such examples can also be cited from the continent of Europe. Mussolini's father was a blacksmith and his mother a teacher in a primary school. Masaryk's father was a coachman and he himself while a lad of thirteen as a blacksmith's apprentice, was busily engaged in working the bellows; and yet out of such parentage distinguished sons are born.

Take again the case of James Keir Hardie, the "creator" of the Labour Party: "He went down the pit shaft, a little lad of eight, to win his bread. He never had a day's schooling. His mother taught him to read, but he was seventeen before he could write his name. He taught himself shorthand, practising the characters on the face of the coal seam where he worked. He read Carlyle and Stuart Mill, and came out of the pit at twenty-three with an idea, a purpose, a vision."—A. G. Gardiner.

"The father of Llyod George was a poor schoolmaster in an elementary school at Manchester but he found himself compelled by the state of his health to abandon the scholastic profession with the long hours in an ill-ventilated building, for the manifest advantage of an out-door life. For that reason he

2 The Mussalman weaver or *Jolha* is the proverbial fool of Hindu stories and proverbs (Grierson: *Bihar Peasant Life*, 2nd. ed. p. 69). The Hindu weavers (*Tantis*) are equally the butt of ridicule as following blindly whatever their elected leader (*Chant*) dictates. In marked contrast with caste-afflicted India, weavers in England have achieved triumphs by their inventiveness. We have only to instance a Hargreaves or an Andrew Carnegie, both born weavers.

returned to his native district (in Wales) where he renewed the lease of a small farm * * * * * * * It is one of the cherished traditions of the family that although Wm. George had been compelled to relinquish the rôle of a schoolmaster for that of a small farmer, his studious habits remained unimpaired.

"His passion for reading continued with unabated force, and each day's tasks alternated between manual toil and mental studies."[3] He died while Lloyd George was only two years old leaving his widow, and two children unprovided. His maternal uncle who was a bachelor and a shoe-maker of humble means took charge of his widowed sister and her two children. He himself during his spare time while not toiling at the cobbler's bench, was a greedy reader of books.

Burns was the son of a small farmer. "The poet" says Carlyle, "was fortunate in his father, a man of thoughtful intense character, as the best of our peasants are. But poverty sunk the whole family even below the reach of our cheap school system and Burns remained a hard-worked plough-boy." Through a series of migrations from one unfortunate farm to another, the poet remained in the same condition of straitened circumstances. At the age of thirteen he thrashed the corn with his own hands, at fifteen he was the principal labourer. Sent to school, he became, for his scant leisure, a voracious reader—eating at meal-times with a spoon in one hand and a book in the other,—and carrying a few small volumes in his pocket to study in spare moments in the fields.

Michael Faraday was also the son of a blacksmith, and in his early days he had to toil as a bookbinder's boy and often subsist on starvation diet.

The poet James Hogg, "the Ettrick shephard" had his education conducted very irregularly owing to his being frequently taken from school to help his father in tending sheep.

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[3] *David Lloyd George* by J. H. Edwards vol. i, p. 13.

Mention has already been made of the fact that Thomas Carlyle himself was the son of a farmer, who with his children worked hard on an "unfortunate" farm to extract what sustenance he could. The careers of several other eminent men born in humble circumstances have been given elsewhere (*Vide* ante, pp. 280-87).

In the United States any one born in the backwoods in a log cabin can aspire one day to be the occupier of the White House. President Wilson in his *New Freedom* very justly points out in what the greatness of the United States of America lies:

"When I look back on the processes of history, when I survey the genesis of America, I see this written over every page; that the nations are renewed from the bottom, not from the top; that the genius which springs up from ranks of the unknown men is the genius which renews the youth and energy of the people. Everything I know about history, every bit of experience and observation that has contributed to my thought, has confirmed me in the conviction that the real wisdom of human life is compounded out of the experiences of ordinary men. The unity and vitality, the fruitage of life does not come from the top to the bottom; it comes like the natural growth of a great tree, from the soil, up through the trunk into the branches to the foliage and the fruit. The great struggling unknown masses of the men who are at the base of everything are the dynamic force that is lifting the levels of society. A nation is as great, and only as great, as her rank and file" (pp. 77-78).

One salient and instructive feature in all these examples is that no social stigma attaches to the ploughman, the quarryman, the barber or the shephard. To earn one's bread by honest toil is considered honourable, whereas in our country the dignity of labour is almost unknown. One who claims to be a *bhadralog* would rather starve than do manual labour and would be contented to earn a bare pittance by "clerking". Often he prefers to live a parasitic existence by being a burden upon his relatives.

Our *chamars* (shoemakers) and *jolas* and *tantis* (weavers)

and barbers on the other hand ply from generations the same trade unrelieved by any diversions, which lend charm to life. Some of our craftsmen again belong to the untouchable classes and the hereditary stereotyped calling which they follow with its dull monotonous drudgery deprives them of any opportunity for improving their lot. Whereas outside Hindu India, *any* man is at liberty to adopt *any* trade without social degradation attached to it and choose a wife from any layer of the society ; and inspite of persistent struggle with poverty he can triumph over the formidable handicaps of adverse circumstances.

Tibet and Burma are conterminous with Bengal—the one in the north and the other in the east. Both these countries owe their civilization to Bengal through Buddhism. They know nothing of the caste-system and their women enjoy a degree of liberty, which is the envy of even their American sisters. Then again, China which lies further east is equally indebted to Bengal in no small degree for her philosophy and culture also through the introduction of Buddhism. European and American writers are unanimous in declaring that untouchability has been unknown in this land for three thousand years and that she is the least caste-ridden country in the world. Sons of parents of humble origin have often been mandarins in the past. With us, once born a *chamar*, he must forever remain a *chamar* and his children and children's children must not hope to rise in the social scale. Their free thinking capacity has been thus sterilised.

The ploughman or the shephard or the labourer in the mines often buds forth into a poet or a geologist. The environment amidst which he is brought up coupled with heredity fosters the growth of such qualities ; whereas our ploughman, or shephard or *chamar* is born under such adverse conditions that there is no future for him. He almost finds the inscription in Dante's *Inferno* writ large on the door of his mud hovel: "All ye who enter here abandon hope." There is no one to lift him out of the quagmire into which he is sunk. The following extract from a biography of Robert Burns will show what

an immense gulf exists between the British peasant and his home life and that of his counterpart in India. It is also necessary to bear in mind that the delineation refers to the state of things in the middle of the eighteenth century :

"The education of Burns was not over when the school-doors were shut. The peasantry of Scotland turn their cottages into schools ; and when a father takes his arm-chair by the evening fire, he seldom neglects to communicate to his children whatever knowledge he possesses himself. Nor is this knowledge very limited ; it extends, generally, to the history of Europe, and to the literature of the island ; but more particularly to the divinity, the poetry, and what may be called the traditionary history of Scotland. An intelligent peasant is intimate with all those skirmishes, sieges, combats, and quarrels, domestic or national, of which public writers take no account. Genealogies of the chief families are quite familiar to him. He has by heart, too, whole volumes of songs and ballads ; nay, long poems sometimes abide in his recollection ; nor will he think his knowledge much, unless he knows a little about the lives and actions of the men who have done most honour to Scotland. In addition to what he has on his memory, we may mention what he has on the shelf. A common husbandman is frequently master of a little library : history, divinity, and poetry, but most so the latter, compose his collection. Milton and Young are favourites ; the flowery Meditations of Harvey, the religious romance of the Pilgrim's Progress, are seldom absent ; while of Scottish books, Ramsay, Thomson, Fergusson, and now Burns, together with songs and ballad-books innumerable, are all huddled together, soiled with smoke, and frail and tattered by frequent use."

Evidently intermingling of superior and comparatively indifferent types of blood renders the improvement of species more possible. Unfortunately the Indian system based as it is on the hierarchy of caste makes eugenic progress as also intellectual advance amongst the so-called depressed classes considerably difficult. The defect of this is visible in the lamentable

history of the progress of the Indian nation or indeed of any conservative country.

In the early days of British rule in India the higher castes —the literary classes—were the first in the field to pick up English education. With the consolidation of British power, law-courts with elaborately codified regulations were established —literally sown broadcast ; the bureaucratic machinery was set in motion and educational institutions also began to spring up. There was thus a constant demand for lawyers, school-masters, secretariat clerks and doctors. Colleges affiliated to the Indian Universities began to shoot forth mushroom-like and became crowded as a diploma or a degree granted by them came to be regarded as a passport for professional or clerical careers. For a time matters went on smoothly and merrily. A few lawyers or doctors commanded lucrative practices. A small percentage of judgeships of the High Courts and Zilla (district) Courts were also gradually thrown open to the Indians and subordinate executive and judicial services were manned entirely by the latter as Europeans on the same scale of pay were found of inferior calibre and proved to be utter failures. The intelligentsia thus found ample scope not only for the exercise of their subtle brain but also for earning their livelihood.

A silent and insidious poison was however all the time corroding the social system. It is said that the incipient stage of tuberculosis eludes detection even by experienced physicians. The insane craze which overtook the literary classes in the pursuit of the will-o'-the-wisp has now began to recoil upon them with terrible effect. They find to their dismay that the professions are extremely overcrowded. Trade and commerce have already passed into other hands and their inevitable fate seems to be to swell the ranks of the unemployed.

In India, owing to the reluctance and almost innate repugnance of the higher castes to participate in commercial pursuits, the march of progress has been arrested all along the line. Two thousand years ago, Æsop, with his acute vision and foresight, drew the picture of the body politic in which the members

were in revolt against one another. In the Hindu Society we have non-co-operation with a vengeance. In Bengal fifty-five per cent. of her population, though in blood, race, and speech practically homogeneous, have sought asylum under the hospitable fold of Islam. Then again the *Gandhabaniks*, the *Suvarnabaniks*, the *Sahas*, the *Tilis*, who are the hereditary traders, would have been lost to Hinduism had it not been for the advent of Chaitanya. The Prophet of Nadia preached the message of equality and brotherhood of man and did his best to efface the distinction of caste.

These classes preferred to remain within the pale of Hinduism—though occupying a lower status—and eagerly embraced *Vaishnavism*. Hindu India offers a strange spectacle. A handful of men representing the head or the brain ; but the great bulk of the people who constitute the main trunk and the limbs separated, I had almost said cut off, form the former.

Bengal specially has suffered terribly for this gross stupidity. The thinking portion of Bengal in whom patriotism and political consciousness have been roused now finds itself isolated from the rich trading and moneyed community. Whenever any appeal is made for funds for national purposes, it almost invariably falls on deaf ears and meets with little or no response. Even the well-to-do communities like the *Sahas*, *Tilis* and *Banias*, not to speak of the numerous "untouchables", *e.g.*, the *Namasudras* and the *Pods*, have become so to speak, the atrophied organs of our body politic and even if electric shocks are imparted to them they show very feeble signs of vitality.

I have often in my public utterances given expression to this unfortunate aspect of the water-tight compartments of Hindu India. It has been pointed to me by correspondents in newspaper columns that some members of the *Tili*, *Saha*, *Suvarna Vanik*, *Sat Chasis* and even *Namasudra* communities have added lustre to modern Bengal ; but they forget that they unwillingly bear out my case. There are a few families in Bengal belonging to the *Tili* community who have been here-

ditary zemindars and merchants for centuries past and who have managed to combine education and culture among them. Thus the houses of Dighapatia, Kashimbazar, Bhagyakul, Ranaghat, etc. (Tili) have produced men who are on a par with any similar sections of the so-called high caste families. Kristodas Pal, again (a Tili), though born of humble parents, rose to the foremost position. The Sahas also can claim to their credit similar instances. The Jagannath College (Dacca) the Murarichand College (Sylhet) and the Rajendra College (Faridpur) owe their existence to the public spirit and munificence of the *Saha* community. Some members of the *Suvarna Banik* community of Calcutta, whose ancestors as banias of the old East India Company acquired wealth, have also produced a few highly educated men.

If, however, one were to consult the Census Report of Bengal, ample justification will be found for my contention. The cases mentioned above are only exceptions. The depressing effect of the caste system discussed above are discernible everywhere in Hindu India.[4]

The difference between the Bengal of to-day and the Republics of Europe in the 14th, 15th, 16th and 17th centuries as also China will now be better understood and realised. In this respect we are centuries behind. Our social hierarchy is diseased and rotten to the core and the canker is eating into its vitals.

Japan shook off her slumbers by one mighy effort when she of her own accord discarded for ever the artificial distinction between the so-called high and low castes. We are never tired of citing the example of Japan when we want to prove that political progress can be achieved even in an Asiatic country. But it suits our convenience to forget all that the land of the

[4] Cf. "In the third century this exclusive spirit was to have its consequences. Roman society was to expire from exhaustion, a hidden cause was to sap its life. When a considerable class in a state, holds aloof and ceases to labour in the common interest, that state is near its end."—Renan's *Marcus Aurelius*.

Rising Sun has done for her social regeneration. There, up till the seventies of the last century, the *Samurai* clans had monopolised all the privileges now arrogated by our Brahminical castes. The *eta* and the *hinin* (the *untouchables* of Japan) were regarded so impure and unclean that they were not even allowed to dwell in the ordinary villages but had locations assigned to them—a state of things now met with in some parts in the Southern Presidency. But on the memorable day of 12th October, 1871, the *Samurai*, with a spirit of chivalry no less than partiotism, voluntarily parted with their vested interests and abolised the artificial and invidious caste distinction and thus laid the foundations of a compact and homogeneous nation. What was possible in Japan in 1871 has been found to be impossible in India, even towards the beginning of the 4th decade of the 20th century. (*Vide* my Presidential Address before the 31st Indian National Social Conference, Dec. 30, 1917).

Japan also realised that it will not do to hold commercial pursuits in low contempt. What marvellous progress has been achieved in this direction in the course of half-a-century need not be told here. Suffice it to say that to-day Japanese merchant shipping of total tonnage of 4 million is now proudly ploughing the oceans. Japanese goods—the products of her own factories and looms—are now flooding the Indian market and some of the cotton mills of Bombay, unable to face the keen competition of the Land of the Rising Sun, are now threatened with extinction, although the Japanese annually buy the raw material (cotton) from India to the extent of twenty-nine crores of rupees.[5]

[5] The trading class in old Japan was confined to the lowest grade in society whereas when modern "Japan began to reorganize her civilization she found that her merchant and industrial classes were incapable of the great tasks before them. They could not provide the capital necessary for the new forms of production and for the material equipment which the country required; they were without experience in large-scale enterprise, in Western commercial methods and in foreign trade; they were accustomed to a position of subservience, and could not be expected to assume the initiative. From the first, then, the State was

India has to pay dearly for her folly. Apart from the fact that the caste-system has been the means of keeping talent confined to a microscopic minority of the population, it has always been a fruitful source of internal dissension and fratricidal strife. In a word, more than anything else it has been a chief stumbling block in the growth of Indian nationality. It has also worked incalculable mischief in a thousand and one ways. In Japan before her awakening, trade, commerce and industries, in the primitive fashion in which they existed, were confined to the lower castes. A Samurai also disdained to mix on a footing of equality with those who were engaged in the sordid pursuit of money-making by taking part in business. But while Japan, by the waving of a magician's wand, has almost obliterated the social inequalities, and changed her mentality, India has remained immovable and heedless, with consequences disastrous to herself.

II. Prohibition of Sea Voyage—its repercussion on Hindu India.

Maritime Activity—Economic Prosperity and Awakening of Political Consciousness.

In the history of the world it is found that maritime activity with its concomitant commercial pursuits, is not only the fruitful source of wealth and prosperity but also of political consciousness. Ancient Phœnicia and Carthage may be cited as instances. The Republics of Venice and Florence in the middle ages tell the same tale. The harbours of these cities laden with merchandise to and from distant marts were the

obliged to take the lead; while the new commercial classes, the bankers, the merchants and the manufacturers, were drawn, not from the traders of the old regime, *but mainly from the ranks of the Samurai*, whose former occupation and privileges had been swept away".—Allen: *op. cit.*, p. 101.

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pride of their citizens and the envy of the contemporary nations.

"My ventures are not in one bottom trusted,
Nor to one place ; nor is my whole estate
Upon the fortune of this present year"

—*The Merchant of Venice.*

Again :

"He hath an argosy bound to Tripolis, another to the Indies ; I understand moreover upon the Rialto, he hath a third at Mexico, a fourth for England,—and another venture he hath squandered abroad"—*Ibid.*

The Rialto again buzzed with life. Florence under the Medici was in all her glory[6]. There were gathered the artists, poets and diplomatists and warriors of immortal fame.

Let us as well take the case of the Batavian Republic. A tiny little country, a considerable portion of which was protected from the onrush of the waves of the sea by means of dykes, hurled defiance at the mightiest Empire of the day with its inexhaustible resources of men and money. This was simply because one of her main sources of strength lay in her navy and in her merchantmen. Antwerp, Ostend, Liege, Brussels were thriving cities and their inhabitants were as rich as they were patriotic and heroic. Holland also was almost the first to accept Lutheran doctrines.

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6 Cf. "It is not easy to realise what Venice must have looked like with this teeming life along her quays and streets, when the pulse of the commercial world beat fullest at Rialto; but there stand forth to assure us of its splendour, the enthusiastic descriptions of Frate Faber, Pietro Casola, above all, of Francesco Petrarch, who bursts into panegyric: 'From my windows on the river * * * * I see vessels as my house with masts taller than its towers. They sail to all parts of the world, and brave a thousand dangers. They carry wine to England, honey to the Scythians; saffron, oil, linen to Assyria, Armenia, Persia and Arabia; wood to Egypt and Greece; then return laden with merchandise to be distributed all over Europe. Where the sea ends, their sailors quit the ships and travel on to trade with India and China. They cross the Caucasus and the Ganges and reach the Eastern ocean". —*The Venetian Republic.*

In the reign of Charles I, it was the wealthy merchants of London who were the chief supporters of the Parliamentary army ; it was they who supplied the sinews of war, and the majority of them also belonged to the Puritanic faith. The strength of the Royalists, on the other hand, lay chiefly in the aristocracy and country squires. Cromwell could plant the flag of the Commonwealth on the soil of England because of the signal and never-failing supply in men and money, which he could draw upon from the metropolis and the city of Bristol[7] It will thus be seen that enlightened and advanced views on the governance of a country, as also political consciousness, go hand in hand with maritime and mercantile activity. Those countries which have depended only on agricultural pursuits have also been the fertile soil for despotism and foreign yoke. Their inhabitants have, in general, been wedded to obsolete and superstitious notions, and their vision and outlook have been narrow. Buckle in his *History of Civilisation* has drawn pointed attention to this aspect :—

"If, again, we compare agriculturists with manufacturers, we shall see the operation of the same principle. To the cultivators of land, one of the most important circumstances is the weather, which, if it turn out unfavourable, may at once defeat all their calculations. But science not having yet succeeded in discovering the laws of rain, men are at present unable to foretell it for any considerable period ; the inhabitant of the country is, therefore, driven to believe that it is the result of supernatural agency, and we still see the extraordinary spectacle of prayers offered up in our churches for dry weather or for wet weather ; a supersitition which to future ages will

7 Cf. "London, true during fifty eventful years to the cause of civil freedom and of the reformed religion * * *" Macaulay : *Hist. of Eng.*

"They (Puritans) were strongest among the mercantile classes in the towns"—*Ibid.*

"The wealthy London merchants, almost all of them Puritans * * —Carlyle : *Cromwell* I, p. 52.

Again : "London city, the purse-bearer of the cause".—*Ibid*, I, 312.

appear as childish as the feelings of pious awe with which our fathers regarded the presence of a comet, or the approach of an eclipse. * * * There can be no doubt that this is one of the causes of those superstitious feelings by which the inhabitants of the country are unfavourably contrasted with those of the town. But the manufacturer and indeed, nearly every one engaged in the business of cities, has employments, the success of which being regulated by his own abilities have no connexion with those unexplained events that perplex the imagination of the cultivators of the earth".

The history of modern China is a repetition of the same story. While northern China which mainly depends on agriculture is wedded to agelong tradition and imperialism and has been a stumbling block in the path of nationalism, southern China, on the other hand, has been the first to accept the principles of Sun-Yat-Sen and national consciousness has been awakened in her. The reason is that the Cantonese (*i.e.*, the Southerners) have been in the forefront in trade and commerce. They have been thus brought into touch with the progressive nations and their outlook and vision have been widened.[8]

[8] Cf. "In the Straits Settlements, the Dutch East Indies and the Philippines the Chinese are not merely numerous and powerful, but it has been largely from funds they have provided that the nationalist movement got its start and has replenished its war-chest in times of prosperity and adversity alike. The great Chinese mercantile communities of Malaysia are Cantonese in blood and more nearly unanimously nationalist in sentiment than any other group of Chinese outside their own country." Upton Close : *The Revolt of Asia*, p. 202.

Again : "The South earlier came into contact with the outside world of culture through commerce. * * * The South developed traders, sailors, navigators, and a commercial life that brought them into contact with many foreign peoples and regions.

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"From the South also come the first generation of students who broke the iron-bound traditions and went to the countries of the barbarians to learn. *Long familiar with the arts and sciences of the West, as practised by the sailor, the trader, or the missionary, the southerner was more inquisitive concerning the sources of differences between himself and the foreigner* (the Italics are mine)." Monroe : *China : A Nation in Evolution*, pp. 158-59.

Bengal or for the matter of that Hindu India in a moment of supreme folly hugged to herself the caste-system in all its rigidity and forbade sea-voyage. Thus cut off from contact with the external world, she became a veritable *Kupamanduka* (the frog-in-the-well), began to look upon the people outside the pale of Hinduism as *melechchhas* (barbarians). She wilfully chose to be blindfolded so that she might rush headlong into the abyss of degradation and ruin and forever be the happy hunting ground of foreign invaders. Verily has she

By too severe a fate
Fallen, Fallen, Fallen, Fallen,
Fallen from her high estate.

III—Fusion of races being impossible, the wealth producing colony in Calcutta living apart—Exclusiveness of the opulent communities, quite unconcerned for the welfare of the country.

The Lombards migrating to England carried with them their knowledge of banking and the name of Lombard street in the city of London still reminds one of the flourishing colony settled there.[9] The persecutions of Alva drove the Flemish who introduced improved methods of woollen trade to this lucky island. The Huguenots similarly have contributed their quota to the making of England. When France, due to her blind bigotry, revoked the Edict of Nantes more than 400,000 of her inhabitants, all Huguenots, left her shores and sought asylum in the neighbouring protestant countries, "endowing the nations which received them with their heroism, their courage and their ability". Needless to say these persecuted, in the course of a generation or two, became fused with the people of their adopted land. Thus we find that the two great gifted brothers, John Henry and Cardinal Newman, were born of a family of Dutch

9 In England, at least, the enterprising traders and bankers who found their way to the west from the 13th to the 16th centuries, though they did not all come from Lombardy, bore the name of Lombards.

extraction and probably of Hebrew origin. Their mother was of a Huguenot family.

Herbert Spencer always attributed his non-conformity and vehement spirit of opposition to the existing religious creeds to Huguenot blood (in a diluted form) derived from his mother.

Of the great German scientist Helmholtz we read that his mother was a descendant of William Penn. In his veins was German, English, and French blood. Bentinck, the boon companion of William of Orange, "was sprung from a noble Batavian race and destined to be the founder of one of the great patrician houses of England". The French novelist Alexandre Dumas had a strain of Negro-blood in his veins. Ludwig Mond —A German by birth and education—makes his fortune in England and settles down there and with his English partner John Brunner founds a great alkali manufacturing concern. He richly endows the Davy-Faraday Laboratory as also that of his *alma mater*, the Heidelberg University. His son Alfred Mond (the late Lord Melchett) perhaps the best known businessman in the world, and certainly in Britain, becomes an out-and-out patriotic Englishman. The patriotic Chinese statesman Eugene Chen claims the blood of three distinct races—Chinese, British and African. It is unnecessary to multiply instances.

England kept her doors wide open to those who were forced to seek shelter in her bosom and she has been richly recompensed for her liberal policy. For instance, she received with open arms many Jews in her fold. This assimilation has undoubtedly been conducive to the growth of her body politic. Such eminent Jews as Benjamin Disraeli (Lord Beaconsfield), George Joachim Goschen, Edwin Montague, Samuel Herbert and Rufus Isaacs (Lord Reading) have been so absorbed in their land of adoption that they completely identified themselves with her interests rendering her signal services as eminent statesmen. There being no impediment in the shape of obnoxious caste-system, the above foreign elements were in the course of one or two generations merged into the bulk

of the English people by intermarriages.[10] In Bengal on the other hand the rich, non-Bengali mercantile communities live by themselves without any touch with the indigenous people. The wealthy Marwaris and Gujratis (Bhatias), though as Hindus they bathe in the Holy Ganges and worship at the temple of the Goddess Kali and hold in veneration the sacred cow, are none the less separated from the Bengalis by the interposition of a Chinese wall.

My contention is that the caste-system is to a large extent responsible for the misfortune of Bengal as narrated here. Had there been intermarriage between the Marwaris and Bengalis a breed of men would have been produced, who would have inherited the characteristic qualities of both the races. A Birla marrying a Mukherji's daughter would have begot a young Birla inheriting the business instinct of the one as also the intellectual prowess of the other. A Goenka's daughter wedded

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10 Cf. "For upwards of a century after the conquest, Anglo-Norman and Anglo-Saxon had kept aloof from each other; the one in haughty scorn, the other in sullen abhorrence. They were two peoples, though living in the same land. It is not until the thirteenth century, the period of the reigns of John and his son and grandson, that we can perceive the existence of any feeling of common patriotism among them. But in studying the history of these reigns, we read of the old dissensions no longer. The Saxon no more appears in Civil War against the Norman; the Norman no longer scorns the language of the Saxon, or refuses to bear together with him the name of Englishman. No part of the community think themselves foreigners to another part. They feel that they are all one people, and they have learned to unite their efforts for the common purpose of protecting the rights and promoting the welfare of all".—Creasy : *The Fifteen Decisive Battles of the World.*

Again : "The great grandsons of those who had fought under William and the great grandsons of those who had fought under Harold began to draw near to each other in friendship; and the first-pledge of their reconciliation was the Great Charter, won by their united exertions, and framed for their common benefit".—Macaulay—*Hist. of Eng.*

"Early in the fourteenth century the amalgamation of the races was all but complete; and it was soon made manifest, by signs not to be mistaken, that a people inferior to none existing in the world formed by the mixture of three branches of the great Teutonic family with each other, and with the aboriginal Briton".—*Ibid.*

to a Bose's son would have begot a Bose in whom the traits of both the races would have been harmoniously blended. The dictum of Sir Henry Maine, the eminent Jurist, that caste is the most disastrous and blighting of human institutions, is by no means over-coloured. Not to speak of matrimonial alliances, even inter-dining is forbidden. Nay even among the Marwaris themselves there are certain sub-sects, *e.g.*, the Maheswari, the Agarwala, the Oswal, amongst whom intermarriage is not allowed. The result is that the Bengali and the Marwari are practically as the poles asunder. An average Bengali knows as little of the inner social life and customs of the Marwari as he does perhaps of the Laplander and *vice versa*. The same remarks apply to the opulent Jain community.[11]

Thus Bengal to her economic disadvantage cannot count the Marwari, the Jain, and the up-country Kshetri, who have for generations settled here and cultivated to perfection only one art—that of money-making—as her own. The Bania instinct is innate in the latter, but education and culture are sadly wanting in them, hence they are not only clannish but often victims of rank superstition. While they will grudge you a few rupees for a good cause, they will easily allow themselves to be victimised and duped by a *Babaji* in *gerua* (red ochre) cloth and spend thousands at his behest for performing pujas and consult him as a sooth-sayer when they stake large sums in gambling. I have firsthand knowledge of the huge funds wasted in this manner. The average Bengali Saha or Tili is not behindhand in this respect. He sometimes even goes the Marwari one better.

An ex-pupil of mine, a Sir T. N. Palit Research Scholar, joined the non-co-operation movement, took a vow of celibacy and dedicated himself to the service of the country. He has founded an Asram (retreat) in East Bengal and opened several schools for the education and uplift of the depressed classes. There are several wealthy traders belonging to the Saha caste resident there ; one day he called upon one of these and im-

11 It should be noted that some Marwaris also belong to Jain faith.

plored him to contribute something to his school ; but he turned a deaf ear to the piteous appeal. A *babaji* with a flowing beard appeared on the scene. At once this man went down on his knees, prostrated himself before the holy mendicant and begged the privilege of serving him and his numerous *chelas* (disciples). The man with his blood-shot eyes flared up and imperiously demanded first of all one seer of ganja (*i.e.*, 2 lbs. of the Indian hemp, *Cannabis Indica*) worth 80 rupees. This being readily supplied he was propitiated. Then followed a list of articles of foodstuffs including ghee (clarified butter) and wheat flour for feeding his non-descript followers, who are often idlers and for whom Satan finds ample mischief. In other words, this trader had no hesitation in spending some five hundred rupees then and there for what he simply believed to be an act of piety, while at the same time he grudged rupees five as a donation to an elementary school by which members of his own backward community are primarily to be benefited.[12]

I shall give another instance. At Nagpur (C. P.) the Vice-Chancellor of the University with his utmost efforts was able to raise barely rupees eighty-thousand for the new buildings by private subscription, while within a distance of a mile or so a wealthy Marwari has erected a temple of white Macrana marble brought all the way from Jaipur—the same marble with which

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12 As I am looking through the proofs I learn that a wealthy Tili tradesman has just celebrated the nuptials of his nephew with great *eclat*. He sent cart-loads of presents in an aeroplane and chartered two special trains with 1st class carriages for carrying his guests to a distant district. Thus while gladly squandering several thousands of rupees only for a vain show, he would, perhaps, grudge even a few hundred rupees for a girls' school of his own backward community. It is very likely that the vast fortune, he now squanders, was earned by his father by hard labour and perhaps by carrying big loads on his own shoulders from a distance. He in his lifetime never cared to ride a motor car while his son hires an aeroplane to send presents on the occasion of his nephew's marriage ceremony!

the Victoria Memorial of Calcutta has been built.[13] This temple has cost him some six lakhs of rupees, while over and above that he has richly endowed a *dharmasala* (rest house) attached to it. Another wealthy Marwari of Calcutta has built a temple at Pushkar (Ajmere), one of the famous holy places of the Hindus, at a cost of some twelve lakhs of rupees. Here, and in similar sanctuaries, orthodox superstitious priests and ganja-smoking mendicants alone flourish. Society derives very little of real good from such benefactions. But why single out the Marwari alone? The Cutch Memon or Nakhoda Mahomedans are wealthy merchants of Calcutta, but they are as a rule without culture or education and their outlook is much the same as that of the average Marwari. They would spend lakhs on the building or restoration of a mosque but will not spend anything on education or hospitals. A recent example will suffice:

> "Through the generosity of the Cutch Memon or Nakhoda Mahomedan community the biggest Mosque in Bengal in Zakaria Street is under construction at a cost of 15 lakhs of rupees. It is the only one of its kind in India. The building is four-storied and will represent a feast of architectural beauty. To the top of the main dome the height will be 117 feet and the two minars will stand 151 feet each while they will be supported by 25 minarets of varying heights. The work is being supervised by Mr. M. S. Comar, the designer"—*The Illustrated Weekly Hindu* (July 27, 1930).

Madras is fortunate in this respect. The Chetti community, many of whom are wealthy money-lenders and bankers are, after all, *Madrasis* and thus they belong to Madras. The money which they earn remains in Madras. Unfortunately, their outlook, also, is equally narrow. An Annamali Chettiar,

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13 Central Province is much more in the grip of the Marwaris than even Bengal. Raipur, Bilaspur, Drug in fact the region known as Chhatisgarh (lit. the area of thirty-six forts) are now strongholds of Marwari commercial activity.

is rather an exception than a rule. These Chettis lavishly spend, out of their abundance, for repairing temples and decorating the idols with costly gems and jewels.[14]

Then again during the annual bathing ceremony at Ganga Sagar (near the mouths of the Ganges) thousands of pilgrims resort there for purification and wealthy Marwaris are known to find passage-money for scores of *babajis* and mendicants so that they thereby may earn what they believe to be salvation and piety. There are rich Jains again at Azimgunj (Murshidabad) and other places where they have settled for the last three hundred years; they go on annual pilgrimages to Mount Abu and Palitana (Gujrat); some of them often spend as much as Rs. 25,000 on such occasions. Their notions are much the same as those of the crusaders of Middle Ages in Europe. The few cases I have cited are by no means exceptional, but are typical and only point the moral and adorn the tale.

But why blame the Marwaris and Jains alone? Even college-educated Bengalis who claim to be leaders of thought are loath to shake off the trammels of priestcraft and hug to their bosom most absurd and superstitious customs. They are found to be as much victims of rank superstition as any of their illiterate brethren, often the dupes of *sadhus*. Witness the Satyagraha going on at Munshiganj. There the lawyers, (some of them M.A., B.L.'s) are persisting in denying admission to the so-called lower castes to the temple."[15]

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14 "A glaring example of which profusion I will cite once more the case of twenty lakhs of rupees which was being spent in my old district when I was out there nine years ago on the repairs of one temple at Ramnad".—J. B. Pennington, *India*, Jan. 13, 1919.

15 In a passage of surpassing pathos and beauty the Historian of Civilization thus accounts for the downfall of Spain: "A people who regard the past with too wistful an eye, will never bestir thesmelves to help the onward progress; they will hardly believe that progress is possible. To them, antiquity is synonymous with wisdom, and every improvement is a dangerous innovation. In this state, Spain still lingers. Hence the Spaniards are remarkable for an inertness, a want

Andrew Carnegie gives away millions for founding working men's institutes not only in the land of his birth but also in the land of his adoption. He also founds Research Institutes in America and richly endows the Scottish Universities. Rockfeller also spends millions of dollars for the same purpose. He has also spent untold millions for the uplift of the Chinese and for combating tropical diseases. If one were to take at random an issue of the weekly edition of the *London Times* and glance at the wills and bequests by self-made men for public good he will find that their charities are seldom misplaced or misdirected. Year after year in this manner rich gifts and endowments go to swell the funds of the existing educational institutions and hospitals or are set apart for founding new universities or institutions for combating tuberculosis or cancer or tropical diseases.[16]

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of buoyancy, and an absence of hope, which, in our busy and enterprising age, isolate them from the rest of the civilized world. Believing that little can be done, they are in no hurry to do it. Believing, that the knowledge they have inherited, is far greater than any they can obtain, they wish to preserve their intellectual possessions whole and unimpaired; inasmuch as the least alteration in them might lessen their value * * * While the human intellect has been making the most prodigious and unheard-of strides, * * Spain sleeps on, untroubled, unheeding, impassive, receiving no impressions from the rest of the world, and making no impressions upon it. There she lies at the further extremity of the continent, a huge and torpid mass, the sole representative now remaining of the feelings and knowledge of the Middle Ages. And, what is the worst symptom of all, she is satisfied with her own condition. Though she is the most backward country in Europe, she believes herself to be the foremost. She is proud of everything of which she should be ashamed".

These remarks apply with far greater force to unhappy India. Spain at any rate is not caste or untouchability-ridden, nor is there any bar to marriage between one Spaniard and another or between a Spaniard and an Englishman or a Frenchman.

16 Mr. Samuel Courtauld, a member of the famous firm of artificial silk manufacturers, has added a sum of £20,000 to the £40,000 which he gave to erect and equip a new institute at Middlesex Hospital.

Sir William Morris, the motor car manufacturer, has announced that he intends to devote to charity the whole of the £2,000,000 which he draws this year as accrued dividend on the profits of the firm.

Barnado's Homes, Homes for consumptives, New Parks to serve as lungs for congested areas, improvements in agriculture including the securing by cross-fertilisation and natural selection of the best strain of wheat and breeds of cattle—in a word, a thousand and one objects for the welfare of the country come in for a good share of the attention of the philanthropic donors. Owing to the intellectual backwardness and the consequent narrowness of vision and want of culture, temples presided over by dissolute priests and also swarms of idlers in the garb of *sadhus* and *babajis* alone thrive here.

The only community in India, though small in numerical strength, not amounting to even a lakh, which has been foremost in commercial and industrial enterprises, which has been prolific in producing men of education and culture as well as patriots and philanthropists is that of the Parsis of Bombay in whom one finds culture, wide outlook and philanthropy in harmonious blending. They are also comparable in this respect to the English and American philanthropists. Thus apart from J. N. Tata, the Camas, Jejeebhoys, the Wadias and several other families are proverbial for munificent charities.[17]

The Gujratis are not a whit behind the Parsis in enterprise and public spirit. A Vithaldas Thakersey or a Gokuldas Tejpal is by no means an exception ; whilst a Pursottamdas Thakurdas who combines in himself sound business instinct and a unique knowledge of economics, sheds lustre on his province and the community of which he is an ornament. It must be admitted that man for man a Gujrati is superior to the Marwari in width of outlook and in patriotic fervour.

Lady Houston has made an unconditional gift of £100,000 to St. Thomas' Hospital, London.

A recent telegram announces (Nov. 1931) that nearly the whole of the late Sir Thomas Lipton's fortune, which it is anticipated by his trustees, will exceed £1,000,000, is to be divided among hospitals and charitable institutions in and near Glasgow and in London and Middlesex.

[17] The late Sir Dorab Tata by his will has recently bequeathed his whole fortune of between two to three crores for charitable purposes.

The Marwari has yet to learn to subordinate his selfish interests to public good. His pursuit of wealth is only from sordid motives. No wonder that in Bombay the Gujrati saying: તમે મારવાડીયા થઇ ગયા—"You have become a Marwari"—is regarded as a reproach.

Another serious misfortune of Bengal has also to be taken note of. The Marwaris and the Bhatias who have settled here for generations scarcely look upon Bengal as their real home. They have snatched away the trade and business of the Bengalis and have grown immensely rich ; but the land of their adoption scarcely derives any benefit from their huge earnings. Most of the multimillionaires of Calcutta hail from Bikanir and they naturally carry their wealth to their native place. The Britisher so long as he resides in Bengal contributes at any rate something to her in the shape of the wages of the *baburchi* (cook) Khansama and ayah he engages and the price of the fowls, eggs, and fish he consumes. But the Marwari in this respect contributes not a farthing. He imports his own food-stuffs, *e.g.* wheat, ghee and pulses, etc. from up-country. His servants again are all up-countrymen and being a vegetarian he does not pay for the fowl or the fish or the egg. The donations to and the endowments of, the Calcutta University come up to about 66 lakhs but scarcely any respectable amount has as yet been contributed by a Marwari ; his outlook is much the same as that of his Nagpur counterpart referred to above.[18]

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18 That the contribution of the Marwari is only an insignificant fraction thereof, is evident from the statistics given below :—

"Kesoram Poddar (Ashutosh Mookherjee Medal Fund) Rs. 10,000/-; Birla Hindi Lectureship Fund Rs. 26,200/-; Ganapati Rao Khemka (George V. Coronation Medal Fund) Rs. 1,000/-; Total Rs. 37,200.

Had the Marwari been imbued with the patriotic impulses of the citizens of Bombay, the local institutions (besides the University) like the Carmichael Medical College, Chittaranjan Jatia Ayurbignan Parisad (National Medical School), the Deaf and Dumb School, the Asylum for the Blind &c., should have been recipients of crores of rupees out of their abundance. *Unto whom much is given of him much is expected.*

On the other hand an Andrew Carnegie spends millions for the

The Marwari, as I said above, will grudge to spend anything like a decent sum for the educational institutions of Bengal or the Central Provinces. The land where he makes his fortune is seldom or never a beneficiary of his charities but on the other hand a Hindu of education and culture, also not a native of the place, realised the debt, I had almost said the debt of honour, to the place where he reaped his harvest of gold, and bequeaths almost his entire property to the local university. I need only allude to the princely benefaction of the late Rao Bahadur D. Lakshinarayan, a businessman of Kamptee who has recently (November, 1930) bequeathed rupees thirty lakhs to the Nagpur University for industrial Education.

Perhaps I owe an apology to the great Marwari community of Calcutta. It will be seen that I have no complaint against the Marwari as such. He is by no means stingy and close-fisted ; he opens his purse-strings ungrudgingly whenever a famine or flood overtakes the land. His charities are however often misdirected, due to his want of culture and education and broadmindedness. There are fortunately notable exceptions. A Ghanasyam Das Birla would do credit to any community in India. One of the noblest sons of India, whose patriotism, unbounded charity and unparallelled sacrifice for the country's cause, has secured for him a permanent place in the hearts of the people also belongs to this community—I mean Seth Jamunalal Bazaz. But a hopeful sign of the times is that an era of awakening is slowly (I had almost said at a snail's pace) dawning, especially among the Agarwalla section of the community.[19]

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benefit of the land of his adoption. "In Pittsburgh I had made my fortune and in the twenty-four millions already spent on this group, she gets back only a small part of what she gave, and to which she is richly entitled".—*Autobiography*, p. 257.

[19] Compare the following two extracts from the speeches of two representatives in the consecutive sessions of the Marwari All-India Agarwalla Mahasava :

"Day in and day out we hear of the heart-rending tales of domestic

Of late, I have come into close contact with some *young Marwaris*; they seem to be made of the right stuff and augur well for the future of the domiciled sons of Marwar, Bikanir, Jodhpur, etc. But at present they do not count.

The above was written a couple of years ago. A case in point illustrates what I have been urging all along:—

"The town of Pilani was astir on the occasion of the visit of His Highness the Maharaja Bahadur of Jaipur, in connection with the opening ceremony of the new Birla College Building on December 6."

* * * * *

"It was raised to a high school in 1925 and big hostels were built to provide accommodation to students. Raja Baldeodas Birla chalked out a progressive programme of development of the Institution and created a Trust called the Birla Education Trust, with a fund of what now amounts to 12 lakhs of rupees, for the propagation of education. In 1929 the school was raised to an intermediate College with commerce classes added to it in 1930."—*Liberty*, Dec. 8, 1931.

Thus while the benefaction to the Calcutta University is only the paltry sum of rupees twenty-six thousand, that spent

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unhappiness which is a direct and inevitable consequence of a marriage system which is absolutely ill-suited to the times; snatched away from her natural surroundings of play and learning and wedded to another equally young and innocent boy, and a little later we learn that the life of the boy-husband is cut off at the very threshold of his youth, thus leaving before the girl-widow the only prospect of paying the penalty of an early marriage by physical and mental tortures. Equally numerous are the cases in which a man almost in the evening of his life drags to the altar of marriage a girl fit to be his great-granddaughter because, forsooth, he cannot live a bachelor's life in his old age. It is for you to imagine the dreadful consequences of such obnoxious matrimonial alliances which are a veritable bane to the community in which they occur".

Presiding over the Twelfth Session of the All-India Marwari Agarwalla Mahasabha, Mr. D. P. Khaitan, an enlightened and educated member, referred to lack of education, conservatism, ill-matched child marriages and purdah system etc., which stand in the way of progress.

in the native village of the Birlas amounts to the huge figure of twelve lakhs. The Birla Brothers reap no inconsiderable portion of their golden harvest in Bengal, but then Bengal is to them a land of exile.

It should be remembered that as far as culture, wide outlook and patriotism are concerned the Birlas represent altogether a higher type of Marwaris, yet they find it impossible to shake off their inborn clannish and parochial mentality.

IV. Revival of Hindu Orthodoxy fatal to the Progress of India.

Our excellent friends, the Hindu revivalists, will talk by the hour on the transcendental truths and sublime thoughts in the "Gita" and deliver elaborate discourses on the catholicity of Hinduism and its superiority over all other existing creeds; will condemn untouchability in unmeasured terms and so on. When, however, it comes to carrying the precepts into practice, they are the first to show the white feathers; as Professor Wadia puts it:—

"Our Vedantist will flood you with quotations to show how catholic Hinduism is, but woe to the man who dared to take this seriously and ever acted upon them. Quotations are for show, not for action. In fact, I believe so much precious time has been wasted in proving that Hinduism is cosmopolitan, is catholic, that no time has been spared for the practice of it. Fear leads to repressions and without its conquest no man can find himself or rise to his full stature".—*Presidential Address at the Philosophical Congress* (Dec. 1930).

No wonder that in spite of the empty vapourings of the Hindu Sabhas and Sangathans, conversion to Islam goes on day by day as merrily as ever. And why should it not? Islam knows no distinction of race, colour, or creed as far as social matters are concerned. Untouchability it is a stranger to; it is a "perfect equaliser of men", as Carlyle has it. The same philosopher again says somewhere, "A man whose word will not inform you at all what he means or will do, is

not a man you can bargain with. You must get out of that man's way, or put him out of yours." No wonder our friends the *Namasudras* are tired of the hypocritical assertions of the Hindu leaders and are sometimes eager to seek shelter in the bosom of Islam.[20]

Hinduism with its elaborately designed and graded social hierarchy is full of weak elements; on the one hand we have a handful of cultivated and highly intelligent men belonging practically to the higher castes and on the other the teeming myriads including the trading classes, non-responsive to the former's call. The huge Hindu society is like an immense expanse of an ocean and the divers sects and sub-sects are so

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20 The daily papers of 17-6-31 under the caption "Oppression of High Caste Hindus" published the following item of news :—

"Information reached Dacca that the entire Namasudra population of the Sunamgunj sub-division in Sylhet are going to be converted into Mahomedanism. Dr. Mohini Mohan Das of the Namasudra community telegraphed to Sunamgunj Bar Library as well as to the Congress Committee to ascertain the truth of this and he has got a reply to the effect that the facts are correct and it has been further stated that this position has been brought about by the preachings of a Mahomedan Moulavi of Dacca and the oppression of the high caste Hindus".

Islam is even making headway against Christianity which claims to be based upon Fatherhood of God and Brotherhood of man. Its outlook is highly democratic. As a recent writer observes: "Islam by the very fact of its starting as a desert creed—and a desert is a leveller—and by its having at once spread over the three continents, never acquired the sense of racial distinction. To Islam all Moslems are brothers, whether they be Bantus or Berbers, Turks or Persians, Indians or Javanese. And this no theoretical equality, but practical equality to be seen in their social relations and work-a-day behaviour. It is this which appeals to peoples low down in the scale of culture, who feel they are lifted up to the level of their converters when they go over to Islam. It seems to us that in the battle between Islam and Christianity for the spiritual conquest of Africa, the victory will lie with the former, unless the Christian missionaries divest themselves of all racial prejudices and sense of superiority, and set up in real earnest the Christian brotherhood which alone can stand against the Islamic brotherhood".

In the mosque the Amir and the Faquir pray side by side. Hence it is that Islam has spread rapidly throughout the Malayan Peninsula, as also in Java, Borneo, and Sumatra.

many tiny islets scattered about, nay, separated from one another by an unbridgeable gulf. It is not a body pervaded by one principle of vitality and sensation ; in the numerous quarrels between the high castes and the so-called low castes—its fissiparous and disintegrating tendencies are daily brought before our eyes.

Rabindra Nath who has always been unsparing in his denunciations of the silly absurd customs and rites which have got encrusted round the *achalayatan* (the immobile Hindu social frame-work) in the course of his recent message on the celebration of the sixty-third birth-day of Mahatma Gandhi rightly says :—

"The greatest enemy which has been dominating our country is the gigantic monster of unreason and superstition, caste prejudice and religious bigotry—which are more potent in their malignity than any power represented by strangers from across the seas. No counting of votes and scrambling for privileges can give us independence unless these evils are uprooted. This is what we have to remember on the occasion of the birth-day of Mahatma Gandhi who has given us the courage of a new life and of a determined effort for Freedom. While we realise that it is literally a movement which Mahatmaji, with the tremendous force of his moral personality, has started for the whole country—a movement from inertia and self-diffidence towards self-determination—let us hope that such a stirring of the national mind will also help India to move away from all the social impediments that are holding her back from the path of Fulfilment".

V.—Heredity and Environment—Eugenics—Influence of these applied to my case.

A poor peasant girl tending her father's flock has had a vision. She distinctly hears the Heavenly voice calling her the chosen instrument for the deliverance of Orleans and acquires almost superhuman powers and performs prodigies of valour. The prince of dramatists, "the swan of Avon",

"fancy's child", is born of a parentage which has never shown any poetical genius. There is nothing in the lives of Jesus, Mahomet, Copernicus, Galileo or Newton to justify us in the conclusion that these great men were favoured by heredity.

William Herschel, the greatest observing astronomer, was the son of an oboe player in a military regiment at Hanover. Of his mother we read, "Herself unable to write, she set her face against learning and all the new-fangled notions. The sons and daughters were all very musical. At the age of seventeen he went over to England and earned his bread as an organist and teacher of music. After fourteen hours or so spent in teaching and playing he would retire at night to instruct his mind with a study of mathematics, optics, Italian or Greek. He also about this time fell in with some book on astronomy". (O. Lodge) * * * "He was deep in optics and astronomy, used to sleep with the books under his pillow, read them during meals and scarcely ever thought of anything else. He was determined to see all the astronomical wonders. Not being satisfied with the Gregorian reflector, which he used, he took to the construction of telescopes on his own account. He converted his bed-room into a workshop and during spare hours began grinding and polishing mirrors." "That a direct inheritance of musical gifts is essential to the constitution of musical genius is disapproved by the case of Handel whose family was wholly unconnected with the art. Handel's musical bent in childhood was indeed sternly repressed by his parents, yet he contrived to overcome all the obstacles in his path and by the age of eight or nine was a composer". Ram Mohan Ray was born and bred in an orthodox Brahmin family at a time when ignorance, superstition and bigotry stalked over the land. When barely passed his teens he writes a treatise on monotheism in Persian with an Arabic preface and for his revolutionary social doctrines is compelled to leave his paternal roof. Such instances can be adduced *ad libitum*. In fact, for every case cited in favour of the hereditary transmission of genius and

talents by the adherents of Galton, Carl Pearson etc. nine cases can easily be cited to prove the contrary.

Not only two brothers born one after the other, but also twins are often found to possess diametrically opposed tendencies and predilections. John Milton, the great poet is an out and out supporter of Cromwell and his regicide colleagues; while his younger brother Christopher in the time of the Civil War was a Royalist and in his old age not only had a leaning towards Popery, but had no scruples in accepting a judgship under James II on the express understanding that he would support the dispensing power.[21]

I have been led to indulge in the above remarks on eugenics in order to throw light on the psychology of my own tastes and inclinations. Some traits and features in my character can be traced to my parentage but how even in my boyhood I imbibed a business instinct I cannot explain. As I have already said, I was passionately fond of agricultural pursuits. I took particular delight in turning the glebe with the spade, in tilling, sowing and hoeing with my own hands and raising varieties of crops, in enriching the soil and increasing its productivity by applying manures composed of cow-dung, ashes and decomposed leaves. I used to be a close observer of the methods of cultivation in vogue among the farmers. I noted that the ashes of plants used as a manure improved the quality and materially contributed to the growth of *kachu* (*Arum Indica*) and *kala* (*Musa sapientia*); of course, I did not then know that the ashes of land plants are very rich in potash. I also raised crops of turmeric and ginger. I could indulge my

21 The modern science of eugenics based upon Mendel's law and Weismann's *germ plasm* gives satisfactory explanations of some of these apparently anomalous phenomena; but it is imperfect.

A recent authority thus sums up: "The part played by heredity is entirely different from the part played by environment in determining of the character of the developing individual. Heredity determines all the possibilities. Environment may foster the development of certain characteristics and retards or even prohibits the development of others, but it produces nothing".

hobby in this direction to my heart's content as my parents fully entered into my designs and used to help me liberally with funds in hiring the services of labourers. An orchard of cocoanut palm and arecanut planted half a century ago by almost my own hands, revives a pleasant memory of my days of boyhood. On our removal to Calcutta I looked forward to the advent of the summer and winter vacations, when I could go home and give full play to my agricultural bent. My inborn commercial and business instinct was also awakened. A small part only of the produce of the fields would be consumed by our household and it was therefore necessary to dispose of the large surplus in the open market especially as the proceeds would go to defray a good portion of the outlay incurred.

From this time forward my shop-keeper's instinct was roused.[22] Some of our amiable neighbours were a little scandalised at the son of the laird of the village selling the produce of his field ; but I did not mind it. My commercial instinct, though lying dormant for years, stood me in good stead and came to my rescue a few years later. My father who was more of a theoretical turn of mind once embarked upon a hazardous venture. H. H. Wilson's *Sanskrit English Dictionary* was getting very rare. A copy of it could hardly be procured for Rs. 40 or 50. A learned Pandit persuaded him to publish the third edition ; he (the Pandit) himself undertook to correct the proofs and supervise the publication and held out bright prospects from the sale of the work. The enterprise proved to be a dismal failure and my father lost some seven thousand rupees which added to his pecuniary embarrassments. Two well-known publishers of Sanskrit works of those days—Pandit Jivananda Vidyasagar and Bhuban Mohan Basak of Nimtola Ghat Street were induced to purchase a lot of the dead stock at a nominal upset price of Rs. 2 per

22 I use the word in its comprehensive sense. Napoleon derisively called the English people "a nation of shop-keepers".

copy. Being in actual touch with business they made considerable profit out of the bargain. Several hundred copies still remained undisposed of and I did not allow them to be sold as so much waste-paper but kept them carefully packed hoping for a better future. In the damp climate of Bengal to preserve such material from the ravages of the white-ant and the silver-insect is by no means an easy task. My precaution and labours were, however, destined to be rewarded three or four years later. In 1878 the Calcutta establishment had to be broken up as my father being now involved in debt had to cut down his budget. I had to shift my quarters to rooms in a "barrack" at 80, Muktaram Babu's Street. My business instinct now stood me in good stead. Although my father tried his best to send me monthly remittances to meet my expenses, I could well realise his difficulties and was anxious to relieve him as much as I could. I now hit upon the idea of advertising in the papers for the sale of Wilson's Dictionary at Rs. 6 per copy. Orders began to come in from different parts of India as also from some of the Calcutta book-sellers. Not only did I get on fairly well but I was emboldened to start as a book-selling agent. The dictionary was published in the name of Gyanendra (strictly spelt Jnanendra) Chandra Rây and Brothers, so I christened the name of the would-be firm accordingly. As I had no capital I took care to add as a sort of rider to the advertisement for the Dictionary: "Mofussil orders of books attended to." I even went so far as to put up a sign board in bold types: "G. C. Ray & Bros., Publishers and Book-sellers." I almost made up my mind that as soon as my college career was ended I would start as a book-seller on a humble scale and slowly work my way up.[23] Even in those days I had a strong aversion

[23] It may not be out of place to note here that my propensity in the publishing and book-selling line has been gratified through three of my pupils (M.Sc.'s in chemistry) who started on a humble scale and successfully piloted through severe trials the firm of Chuckervertty, Chatterjee & Co., Book-sellers and Publishers.

to Government service. The award of the Gilchrist scholarship upset all my plans. Providence had evidently ordained that my talents should be given a new orientation and utilised in diverse ways, including the harnessing of science to industries.

CHAPTER XXVIII

The Envoy.

I. Men I have seen and heard.

Although it has never been my ambition to figure as a politician much less to win renown as a platform speaker, yet I seldom let slip an opportunity to hear eminent political leaders, both Indian and foreign. I was present at the Liberal Demonstration (1883) in Willis's rooms in support of Lord Ripon when the Ilbert Bill agitation was at its height. John Bright presided over the meeting and among other speakers were W. E. Forster, Sir George Campbell who was regarded as a bore in Parliament, and Lal Mohan Ghose. Our countryman acquitted himself very creditably considering that he had the misfortune to be preceded by the greatest of England's living orators. I have heard W. E. Gladstone, Joseph Chamberlain, Michael Davitt, John Dillon, Wilfrid Lawson (the "licensed jester of the House of Commons"), Lord Rosebery and A. J. Balfour. I was also present at a public meeting in Edinburgh where the celebrated African explorer, H. M. Stanley, was the principal speaker. In 1926 when I visited Dublin as a guest of the University (*Vide* ante p. 204), a garden party was given in honour of the delegates. I met there His Excellency T. M. Healy (Governor-General of the Irish Free State). The ripeness of age had evidently tempered and mellowed the fervour of his youth. His bland smiles and affable and suave manners made one forget that he was the "Tim" Healy—the firebrand, hotspur and obstructionist Parnellite of the early eighties of the last century.

Of the Indian political leaders, Lal Mohan Ghose had a rare gift of eloquence. He was bereft of mannerism which characterised the oratorical outbursts of Surendra Nath. But Surendra Nath was the idol of young Bengal and his emotional

appeal with thundering oratory had a wonderful effect on the sentimentality of our youngmen. His memory was highly retentive. As President of the Indian National Congress held at Poona the address he delivered was a marvellous performance. He spoke for three long hours without pause or hesitation and without ever caring to look at the printed copy in his hand.

Gokhale was no orator but his fluent speech was profuse in facts and figures. Master of statistics he never indulged in sentimental effervescence. In his precise pigeon-holed mind there was no room for hesitation about conclusion because there was no room for doubt of facts. He understood the value of brevity and was always compact as an essay of Bacon. While Surendra Nath made an appeal to the heart, his was an appeal to the intellect. Ananda Mohan Bose, another great founder of Indian Nationalism, was the despair of his reporters—the flow of his words was simply torrential. He was a bit diffuse and verbose. A speech of his is given elsewhere (p. 155). I had also the good fortune to listen to the impressive sermons and addresses of Keshub Chandra Sen, any number of times. He was the type of a "poet-prophet in the pulpit", and surrendered himself to his emotion and soared with wings. He never argued ; he proclaimed thrilling tidings of a new dispensation.

I have just enumerated some of the political leaders and orators. But the historic gathering in connection with the tercentenary of the Edinburgh University naturally comes vivid to my recollection. A reception was given in honour of the many distinguished guests who had responded to the invitation of the College and had come from far and near. Seldom has it been the lot of any person to witness such a brilliant galaxy of men assembled on one and the same platform. The constellation consisted among others of Saffi, one of the triumvirate, who with Mazzini and Armellini was invested with dictatorial powers when the Republic was proclaimed at Rome ; Ferdinand Lesseps, the great engineer of the Suez Canal ; Louis Pasteur, chemist and father of bacteriology, who gave the final

blow to the theory of spontaneous generation ; Hermann von Helmholtz, the eminent physicist as also physiologist and mathematician ; James Russell Lowell, the American poet and abolitionist ; Robert Browning whom the Lord Rector (Earl of Iddesleigh) humorously introduced as the poet whom no body could understand. Saffi and Helmholtz spoke in faultless English while Lesseps and Pasteur in their mother tongue.

I am writing this portion after a lapse of nearly half-a-century ; I trust my memory is not at fault.

II. Concluding Remarks.

It is with considerable diffidence and hesitation that I submit these pages to the public eye. A reader who will even cursorily glance through them will have no difficulty in discovering that portions are scrappy and disjointed. Indeed, at one time I seriously thought of rewriting the whole before sending it to the printer. It so happens however that I have never had to lead a busier existence than at the present moment. A thorough and systematic revision would thus have meant putting off the task indefinitely, while the sands are running fast out of the hour-glass of my life. *The better is the enemy of the good ;* and it is on this principle that I have ventured upon the publication of this volume, fully conscious as I am of its numerous faults and imperfections.

Portions of the book were jotted down eight or nine years ago and instalments were added on during my voyages to and from Europe in 1926 ; others again during my frequent and numerous tours throughout Bengal and this vast Peninsula in the course of the last few eventful years. This will account for the somewhat mangled, disconnected and slipshod style of the narrative presented.

Some might, at the very outset, offer the advice that a shoe-maker had better confine himself to his last ; that a chemist had no business to go beyond the range of his laboratory. Fortunately or unfortunately as the case may be,

the subject of this memoir has been something more than a mere chemist.

I am what I am and I cannot help being made up of perhaps incongruous elements. Bernard Shaw is not perhaps far off the truth when he says that "no man can be a pure specialist without being in the strict sense an idiot." Whether the materials presented here are of an incongruous nature strung together or whether they bear some sort of relation to the career of the Bengali Chemist it will be for the reader to judge.

Mine has been a dull, humdrum and routine-regulated school-master's life. I have no sensational tales of adventures to tell ; no thrilling hair-breadth escapes to narrate ; no cabinet secrets to divulge at the close of momentous incidents so that the expectant world would listen to them with pricked ears. I thought, however, that a plain, unvarnished narrative of my uneventful career, which has run its noiseless tenour, might convey some lesson to my countrymen, specially of the younger generation.

All the phases of activity in my life have been briefly touched. After finishing the important portions of the text I laid it aside for four or five years and made a fairly exhaustive study of the economic condition of Bengal, lying scattered in the writings of shrewd observers so as to eliminate the personal equation as far as possible and that no one might charge me with being obsessed as regards the failure of the Bengali in the economic world. My considered opinion to my regret is fully corroborated by the many authorities who have bestowed thought upon the subject and I have not hesitated to quote them in the footnotes and sometimes in the body of the text.

I have often said in my addresses to youngmen that I became a chemist almost by mistake ; my predilections being always towards history, biography and general literature. There is nothing uncommon in it ; Huxley has told us that though he earned his name and fame as a zoologist, "philosophy and history having laid hold of him in this eccentric fashion have

never loosened their grip." The monograph on Hume in the *English Men of Letters* series amply bears it out. Lord Haldane, eminent as he was in the field of philosophy, shed lustre on his profession as a lawyer and shone with equal brilliance as a statesman. Such instances can be multiplied.

I confess I am a strange contradiction. Although I am generally credited with being an industrialist, yet from the dawn of my intelligence the ephemeral character of the phenomenal world has haunted me and a disregard for worldly effects has become my second nature. Thus the writer lacks the essentials of a successful industrialist or businessman, as he has always realised the force of the saying—अर्थमनर्थम् भावय नित्यम्—that is to say: "love of money is the root of all evil". So the dominant note running through his life is: "Lay not up for yourselves treasures on earth ; for where the treasure is, there is the heart also."

Any one who will take the trouble to go through these pages will, I hope, all the same find that there is a connecting link pervading my life-work and that my activities are but parts in a comprehensive piece. In other words, he will probably be convinced that I have not lived an aimless life.

It is unfortunate that in one's own memoir the frequent use of the first person singular cannot be dispensed with ; one naturally lays oneself open to the reproach of egotism. An awful burden of responsibility has borne me down whenever I have to use it. Whatever field I have ploughed I have ploughed as an humble instrument in the hand of Providence: my failures are my own: to err is human. But my successes, if any, are to be attributed to the guidance of the All-knowing, who chose me to be His humble instrument. After all, a Divinity shapes our ends. Lord Haldane in the closing words of his *autobiography* gives expression to his consciousness of this aspect in human efforts:—

"I have no sense of success on any very large scale in things achieved. But I have the sense of having worked and of having found happiness in doing so. Better that than more

honours and more wealth, and more esteem from men. For the happiness gained has a character in it of which nothing beyond can take the place. So far as external circumstances are concerned, I would not if I could take the chance of living life over again. A distinguished living statesman and man of the world once asked me whether, even with the aid of such knowledge as experience had brought, I would like to try to begin life anew. My answer was in the negative. 'For', I added, 'we are apt greatly to underrate the part which accident and good luck has really played in the shaping of our careers and in giving us such successes as we have had'. His rejoinder was to the same effect as my answer to his question. 'I would not', he said, 'myself try again, for I do not feel sure that good fortune, irrational as it has been, would attend me in the same way'. The contingent plays a large part even in the best ordered lives, and we do well to ask of philosophy to teach us how to make ourselves detached from the circumstances it brings, whether happy or otherwise. The best that ordinary mortals can hope for is the result which will probably come from sustained work directed by as full reflection as is possible."

J. S. Mill, who is taken to be an agnostic (by some even regarded as an atheist) almost hints his belief in the doctrine of *fatalism* and *predestination* in the following passage:

"Some are born rich without work, others are born to a position in which they can become rich by work; the great majority are born to hard work and poverty throughout life, numbers to indigence. Next to birth the chief cause of success in life is accident and opportunity. When a person not born to riches succeeds in acquiring them, his own industry and dexterity have generally contributed to the result, but industry and dexterity would not have sufficed unless there had been also a concurrence of occasions and chances which falls to the lot of only a small number . . . . Energies and talents are of much more avail for success in life than virtues. . . In the situation of most people no degree whatever of good conduct

can be counted on for raising them in the world without the aid of fortunate accidents".

All through my varied activities I felt the force of the saying:

त्वयाहृषीकेश हृदि स्थितेन
यथा नियुक्तोऽस्मि तथा करोमि।

I commit myself to Thee, O Lord! make me Thy agent.

I have ventured to say many things about the shortcomings of the Bengali, with the fond hope that my timely note of warning will not be a cry in the wilderness. The Bengali has got many noble qualities and I am proud of my nationality and I glory in being a Bengali. In one essential aspect, however, he has proved to be a dismal failure, namely in the art of earning his livelihood. The bread problem of the Bengali has been my obsession during the last forty years, and to my dismay I have been watching that in the land of his birth he is least able to stand the keen competition which faces him in every field. As I am writing these lines, I have been touring from village to village in my native district and keeping an eye on the boys and youngmen. Their stunted growth, and pale, anæmic, lack-lustre looks bear ample evidence of mal-nutrition. Helplessness is writ large on their countenance. A spirit of defeatism pervades them and they are daily sinking down into a despondent rut. When the manhood of a nation in the prime vigour of life is sunk in despair and struck with mental palsy there can be no hope for the future. And yet, in the evening of my life, I cannot afford to give up hopes.

As an humble educationist all through my life, it has been my painful duty to point out how the craze for university degrees has become an unfortunate source of many fatal drawbacks. The Bengalis are perhaps the worst victims of this craze and the result is, as Bernard Shaw puts it: "A fool's brain digests philosophy into folly, science into superstition, and art into pedantry. Hence University Education." It is only too true that "a learned man is an idler who kills

time with study. Beware of his false knowledge: it is more dangerous than ignorance. *Activity is the only road to knowledge.*" Let me echo once more with the great writer: "When a man teaches something he does not know to somebody else who has no aptitude for it, and gives him a certificate of proficiency, the latter has completed the education of a *gentleman*" and thus becomes a failure all his life.

I have not spared any pains to dissect the Bengali character and to lay bare its weak points. Like a surgeon I have plunged the lancet deep into the flesh so as to remove the morbid tissue and apply healing balm. The Bengali people, after all, is my people and its faults are my faults; and its many redeeming qualities are equally my own. I have thus a moral right to take any liberty I like with it.

History is being recast and remade before our very eyes. Not long ago the Chinaman and the Turk—"the sickman of Europe" —were held up to public ridicule and contempt by the overbearing Occidental and were cited as instances of effete and worn-out races. Under the guidance of Heaven-born leaders these people have at last been roused from their age-long slumber, have shaken off their lethargy and despair; and have acquired the strength of rejuvenated youth to the amazement of an incredulous world.

There is no reason why the Bengali, or for the matter of that, the Indian, should lag behind and not fulfil his destiny. I almost hear the echoes of the organ voice of the author of *Areopagitica.*

"Methinks I see in my mind a noble and puissant nation, rousing herself like a strong man after sleep, and shaking her invincible locks."

INDEX

INDEX

Absentee landlords, 16 *et seq.*
Academy of Sciences, 135.
Acharyya, Prankrishna, 89, 226.
Albert Hall, 43; meeting, 127-28.
Albert School, congenial atmosphere, 39; influence of Brahmo teachers on Ray, 42-44.
Ali, Mohammed, 230.
Allen, on Japan, 343, 353.
America, shipping in, 354-355; co-operation in, 416-417; U. S. A. Government and unemployment in, 379-385; genesis of, 506.
American Chemical Journal, 119.
Andrews, C. F., on floods, 247-249.
Arabic literature, enrichment of, 144-145.
Arrhenius, 69, 121, 172, 173.
Asiatic Society of Bengal, 85, 117, 152, 158.

Baker, on China, 316, 323-324.
Balfour, Lord, 204.
Banerji, Chandi Charan, 42.
,, D. C., 340.
,, K. M., 9, 38, 146.
,, Moheschandra, 28.
,, Prafulla Chandra, 34.
,, S. C., 279.
,, S. K., 207.
,, Surendra Nath, 47, 123, 125, Partition and, 139; Ray on, 537-538.
Bangiya Steam Navigation Co., Ltd., 360.
Bankura under British rule, 412; decay of tanks and bunds, 414-417; cup of misery of, 419-421.
Bardhan, Jogendra Chandra, 193.
Barnard, Sir Charles, 73-74.
Bayley, Sir Stuart, 77.
Bengal, partition of, 138-139; intellectual renaissance in, 140-144, 145-151; early economic condition of, 395 *et seq.*; a creditor country, 428-432; economic conquest of, 440, *et seq.*; eclipse of, 471-473; annual economic drain of, 473-478; the underdog, 478-484; effect of caste system on, 519-521.
Bengal Burma Navigation Co., 357.
Bengal Chemical & Pharmaceutical Works, 92-111, 124, 162, 318, 332-333.
Bengal Enamel Works Ltd., 345-347.
Bengal Relief Committee, the, 239-249.
Bengal trade, non-Bengalis in, 451-456; Marwaris and, 445.
Bengali brain and its misuse, 153.
Bengali literature, poverty on the scientific side, 87, modern, 145-146.
Bengali merchant princes, 20-21; 464-465.
Bengalis, failure of the 440 *et seq.* due to ineptitude, 440-447; due to lack of versatility and adaptability, 447-451; due to lack of industrious habits, 456-459; due to want of enterprise and initiative, 459-466; opinions on, 488-497.
Bentley, Dr., 237-238.
Berthelot, M., 114; correspondence with Rây, 115-116; encouragement from, 117-118; on *History of Hindu Chemistry*, 119; Rây with, 135-136; Rây on, 136-137; funeral, 137.

Bessemer, 277, 330.
Betelnut trade, 447-448.
Beveridge, quoted, 398.
Bhaduri, Chandra Bhusan, 83, 95, 96, 102; for the new chemical laboratory of the Presidency College, 113; 182, 317-318.
Bhaduri, Kulabhusan, 96, 102.
Bhatnagar, Prof. S. S., 161, on Physical Chemistry, 186-188, 194.
Bhattacharyya, D. N., 345-346.
Bhattacharyya, Dwijendra Nath, 345.
Bhattacharyya, Kali Krishna, 41.
Biri manufacture and the Bengalis, 459-461.
Birla, G. D., 279, 527-529.
Bodhkhana, Ray Chaudhuris of, 2.
Bombay's share in the economic drain of Bengal, 478-483.
Bose, Amulya Charan, 77; and Bengal Chemical, 101-103; and indigenous drugs, 104; 108, 109; death, 110.
Bose, Ananda Mohan, 123, 125; on Educational service, 155-158; Ray on, 538.
Bose, D. M., 207.
Bose, Jagadis Chandra, 53, 79, 80, 129, 131; epoch-making researches, 152-153; his achievements, 154; 226; Mrs. Bose, 80.
Bose, Jogendra Nath, 86.
,, Panchanan, 250.
,, Prafulla Kumar, 193.
,, Raj Narain, 30, 86, 142.
,, Raj Shekhar, 111; on the failure of the Bengalis, 493-497.
,, Satyananda, 231.
,, Satyendra Nath, 167, 196.
,, Subhas Chandra, 238-239, 241.
Brahmo Samaj, influence on Ray, 30-31; 39; tenets of, 42; *Brahmabandhu Sabha*, 85; movement, 146-147.
Bright, John, and Rây's essay, 64; 266, 537.
Burke, on "Plassey drain", 232-233.
Butler, Dr., 176, 177.

Calcutta, past and present, 20-23; Ray removed to, 26; its changing population, 469-471.
Calcutta Pottery Works, the, 321, its history, 337-342.
Calcutta University, the jubilee, 163; 173; College of Science, 196, 197; Fuller affair, 198-199; Government and Science College, 200-206, 207.
Cambridge University, Ray's visit to, 176-177; Ray at the Congress of the Universities, 204-206.
Capitalism *cum* Industrialism, 390-391.
Carey, William, 145, 503.
Carlyle, on student life at Edinburgh, 57-58; 209; on Cromwell, 222; on true university, 301; quoted, 529-530.
Carnegie, Andrew, on graduates and business, 272-273, 276, 333-334; his career, 277; advice to youngmen, 477-478; 504, 524.
Caste-system, its baneful effect on Hindu society, 502 *et seq.*; responsible for the misfortune in Bengal, 519-521; stumbling block in the growth of Indian nationality, 513; inter-marriage and fusion of races impossible, 519.
Chakravarti, Gopal Chandra, 193.
Charka, gospel of, 361 *et seq.*; spinning and weaving, their decline, 362-365; and agriculture, 375-376; lament of a spinner, 377-378.
Chatterji, Aditya Kumar, 42.
Chemical manufacture and modern industry, 327-329.

Chemical Research in Bengal, 160-161, 166-167, 168, 169-173, 182-183, 191-195.
Chemical Service Committee, Ray's note of dissent, 319.
China, porcelain manufactory, 319-321; Baker on, 323-324; machinery and unemployment in, 385-386; modern, 516.
Chinese, carpenters, 456-457; in the shoe-trade of Calcutta, 458-459.
Chowdhury, Prof. Niren, 242.
Clairvoyance and Ray, 76-77.
Clerkdom and failure of the Bengalis, 466-469; merchant's clerk, 467, 469.
Cloth trade of Dacca, and the Bengalis, 440-441.
Cohen, 132.
Colebrooke, 361; on charka, 362; on early sugar industry in Bengal, 400; quoted, 412.
Coleridge, his bitter experience, 210.
College graduates in business, 333-336.
Collège de France, 135.
Congress of the Universities of the Empire at London, Ray delegate to, 173; 174-176; at Cambridge, 204-206.
Cordier, M. Palmyer, 136.
Croft, Sir Alfred, 74, 75, 77, 80-81, 112, 154.
Crookes, 1, 172.
Crum Brown, Prof., 59, 60, 68, 73, 131, 132, 195.
Cumming, Sir John, 111.
Cunningham, the young Irish professor, 161-163.
Curzon, Lord, and the partition of Bengal, 138-139; on parliamentary eloquence, 269.

Dan, Mahendra Nath, 42.
Darjeeling, Ray at, 77, 169.
Das, B. M., on the failure of the Bengalis, 489-491.
Das, C. R., 231-233, 241; Ray's letter to Mrs. Das, 232-233.
Das, S. R., 53.
Das, Satyaranjan, 53.
Das Gupta, J. M., 241.
Das Gupta, Kshitis, 250, 253-254.
Das Gupta, Satis, 241, 250, 253.
Datta, Akshay Kumar, 30, 146.
" Dr. B. B., 207.
" Madhusudan, 1, 143-144.
" P. N., 71.
" Rashik Lal, 167, 182, 185.
" Srinath, 39.
Davy-Faraday Research Laboratory, Ray worked at, 131.
Deb, Giris Chandra, 29.
Deb, S., 338-340.
Deodhar, G. K., 123.
Deoghar, Ray at, 86-87.
Dewar, Sir James, 131-132.
Dey, Biman Behari, 171, 179.
" Kanailal, 105.
" Maniklal, 167, 182.
" Rajendra Lal, 182, 193.
" Tincory, 174.
Dhar, Nil Ratan, 167, 171; and physical chemistry, 173-174; 182, 185.
Dittmar, Prof., 69.
Dixon, 132.
Dobbin, Leonard, 60.
Durham University, and Ray, 120.

East India Company, 4, 78; and Bengal marine, 349, 413; and Investments from Bengal, 430-431.
Eden Hostel, Ray and the brilliant group of students at, 167.
Edinburgh, 56-58; life at, 56, 67, 68, 71; the Royal Society, 131-132.
Edinburgh University, 59-61, 67; Chemical Society, Ray elected Vice-President, 68; Doctorate for

Ray, 71; excursions, 93-94; tercentenary, 538-539.
Education, insane craze for University, 259, *et seq*; aim of, 303; and mother-tongue, 289-91.
Education Department, Bengal, 74, 79; Ray and, 80-82; Indians and higher service, 78-79; "Reorganisation scheme" and Late A. M. Bose's speech, 155-58.
Elliott, Sir Charles, 81, 112.
Emerson, quoted, 84, 144, 185, 210, 283-284, 310.
Erdman, 132.
Essay and Discourses, 225.
Essay on India, 61-67.
Expert knowledge *vs.* business, 329-333.

Faridpur, food deficit in Bengal, 421; agricultural wealth of, 422; economic condition of, 423-425.
Ferdandes, F. V., 182.
Fischer Emil, 134.
Fishmongers' Company, Ray at the banquet, 178.
Ford, Henry, on mechanisation, 380-381.
Foreign Degree, glamour of, 310, grave wastage, 311; and prestige, 315; and Indian University alumni, 312-314.
Frankland, 132.
Franklin, Benjamin, Ray's special favourite, 30; his life and scheme, 211-212.
Fraser, Thomas, 60.
Fuller, Sir B., 162, 198-199.
Fusion of races and Hindu society, 517-529.

G. C. Ray and Bros., Ray as bookseller, 535.
Gandhi, Mahatma, in loin cloth, 56; Ray meets, 126-127; first appearance on the Calcutta platform and Ray, the Albert Hall meeting, 127-128, his method, 222-223; 361; machinery and, 387-388, 392, and mill-owner, 480; Rabindranath on, 531.
Ganesh Prasad, 207.
Ganguly, Atul Chandra, 160-161.
Gay-Lussac, 134, 165.
Ghosh, Atul Chandra, 161.
Ghosh, Jnanendra Chandra, 167, 173, 182, 185, 196; Ghosh's Law, 197.
Ghosh, Jyotish Chandra, 235.
" Kunja Lal, 235.
" Lal Mohon, 537.
" P. N., 207.
" Ram Gopal, 20-21, 146.
" Rash Behari, 205-206; Ghose deed of gift, 196; second endowment, 203.
" Sisir Kumar, 1, 86.
Gibson, Dr. John, 60.
Gilchrist Scholarship, and Ray, 48-49.
Gokhale, G. K., 123; Ray on 123-126; on Ray, 124; as fellow-passenger, 126, 127; 203; as speaker, 538.
Goswami, Kshetramohan, 9.
Guha, Bires Chandra, 194.
Guha, Prafulla Chandra, 182-183.
Gwynn, G. T., the special correspondent of the *Manchester Guardian*, 242, 250.

Haldane, quoted, 217, 541-542; a parallel case, 230.
Hankin, on America, 268, 277.
Hardy, Mrs., on modern civilisation, 391-392.
Hare School, 26, 28-29; relation with teachers, 41-42.
Hartog Commission, Interim report on education, 262-263.

Hazlitt, quoted, 497.
Healy, T. M., 537.
Helmholtz, 516, 539.
Heredity and environment, Eugenics, and Ray, 531-536.
Hindu Orthodoxy, revival of, fatal to the progress of India, 529-531.
Hindu society, Ray on, 31, 148-149; caste system and, 502 *et seq*; hereditary untouchables, 507; non-co-operation with vengeance, 510; exclusiveness and blindness of the backward communities, 520-521.
History of Hindu Chemistry, 34, 119; appreciations of, 119-122; 329. Second volume, 163-164.
Holland, Sir Thomas, 113.
Hukumchand, Sir S., 278, 332.
Hunter, W. W., on Bengal "the milch cow", 428, 431, 432.

Iddesleigh, Lord, 61, 539.
India, Government of, and Science College and, 199-206; caste-ridden, 502, 508-511, 513.
Indian Association for the Cultivation of Science, and Dr. Sircar, 77, 149.
Indian Chemical Society, its genesis, 188, 192; Ray and, 194-195.
Indian Medical Congress, stall for the Bengal Chemical at, 105.
Indian National Congress, 125; resolution on Education Service, 155; Ray, ten minutes' president of, 230.
Indian School of Chemistry, evolution of, 169-70, 185-188; fresh recruits, 192-194.
Indian shipping, 355-356, 358; indigenous ship-building, 359-360.
Indian University alumni, 313-315.
Indigenous Banking, and the Bengalis, 441-444.
Indigenous drugs, and Bengal Chemical, 104-105; Bose and Kar for, 104.
Industry, war and, 316-319; modern, 327-329; chemistry and, 325-327; and state, 342-344; Melchelit on, 331.
Industry precedes Technology, 316 *et seq*; case of China, 319-324.
Institute of Science at Bangalore, 198, 200-202.
Insurance Companies, drain of Bengal's wealth by, 483-487.
Investments, 430-431.
Irrigation, and the Mahomedan rulers, 418-419; excavation of tanks, 14-16; and Bankura, 414.

James, H. R., on Ray, 180-181; Ray on, 183-184; 185.
Jack, quoted, 448.
Japan, national government of, for infant industries, 342-344; mercantile marine, 352-354; social changes in, 511-512.
Jennings, Mr., 185.
Journal des – Savants, Berthelot's article, 117-118; on *History of Hindu Chemistry*, 119-120.
Jute Industry, 401-402; effect of jute cultivation, 403-405.

Kabibhusan, Pandit Navakanta, 118.
Kar, R. G., 104.
Kelly, Dr. and Mrs., Ray with at Edinburgh, 67-68.
Khadi Pratisthan, 376.
Khaira endowment, 203-204.
Khulna, 76; Famine and Ray, 234-235.
Knowledge, on Ray, 119.

Labour-saving devices, 384-387.
Lafont, Father, 149.

Lahiri, Ramtanu, 2, 24.
„ Prasanna Kumar, 47.
Laski, H., quoted, 229, 299-301.
Lavoisier, 134, 218.
Laws of health, Ray on, 37.
Lévi, Sylvain, Ray with, 135-136; on Ray, 164.
Lippman, Von, 122.
London, Ray at, 53-54, 131, 173-179; Lord Mayor's banquet, 179.
London Chemical Society, 122; Ray read a paper before, 173-174; 195, 317.
London Times, on Bright's letter to Ray, 64.
Lorenz, Prof. Richard, 134.

Macaulay, his peroration, 78; famous minute, 142, 292; 209-210; quoted, 264-265.
Macdonald, Ramsay, on Railways and Famine in India, 407-408; 427; early life, 269, 284-285.
Machine, driving men out of work, 381-384; curses of, 385-386; Gandhi and, 387-388; superior tools and starvation, 393.
Maidan, walk, 167; club, 224, 226.
Maitra, Heramba Chandra, 86, 89, 226.
Maitra, Pramatha Nath, 426.
Makers of Modern Chemistry, extracts from, 165-166.
Manchester Guardian, the, the special correspondent on the flood relief-work of 1922, 242-247; on the eclipse of Bengal, 471-473.
Manning, Miss E. A., 54.
Manual work held in contempt, a great national danger, 282-288.
Maritime Activity, and awakening of political consciousness, 513-517.
Marshall, Hugh, 61; how became famous, 70.
Martin, 158-159.
Marwaris, 90, 463-464; and Bengal trade, 444-446, 474, 476, 477; separated from the Bengalis and their social outlook, 519-520; misdirected charities, 521-522, 527-529.
Masaryk, 287, 295; outlook on education, 302-303; 306, 504.
Mass Production of graduates, 259-263.
Mechanisation, Ford on, 381; mechanical civilisation and China, 385; and U. S. A. 389-390.
Medium of instruction, 289, 290; bilingualism, 295-299.
Melchett, Lord, on modern industry, 327, 331, 334; 518.
Mercantile marine in Bengal, past and present, 347-358.
Mercurous Nitrite, discovery of, 113-114; first paper, 152.
Meston Award, and drain of the wealth of Bengal, 435-439.
Metropolitan Institution, 46-48.
Meyer, Victor, 114.
Meyerhofer, 132.
Mitra, Digambar, 9, 10, 19.
„ Peary Chand, 21, 146.
„ Prafulla Chandra, 180, 196, 242.
„ Rajendra Lal, 19, 146.
„ S. K., 207.
„ Susil Kumar, 194.
„ Yadav Chandra, 95, 102.
Monahan, F. J., 296.
Monroe, on China, 386.
Modern civilisation, Howard on, 388; the underworld, 389.
Mossian, 136; 137.
Muir, Sir W., 62; on Ray, 63; 73.
Mukherji, Asutosh, 154-155; letter to Ray and the Science College, 179-180; 196; his desperate efforts to secure grant, 198-199, 203.
Mukherji, Janendra Nath, 167; in Colloid Chemistry, 172; 173, 182, 185, 194, 196.

Mukherji, Jogesh Chandra, on the failure of the Bengalis; 491-493.
Mukherji, Sir R. N., 278.
Muslim Pirs, 3.
Mussolini, on state schools, 281-282; life, 286-287; on University, 301.
Mysore Convocation Address, by Ray, 307-309.

Nandy, Manindra, 196; in "Pottery Works", 337, 340.
Nature, 119; on Ray's paper, 174; on the Indian School of Chemistry, 185-186; on Ray's life-work, 225; on Berthelot's funeral, 137.
Nature Club, 89.
Nature Study, Ray in, 87-89.
Neogi, Panchanan, 160.
Newmann, Cardinal, 300-301.
Nitrite, Ray's paper on, read before Lond. Chemical Society, 173-174.
Non-Bengali immigrants in Bengal, 463.
North Bengal Flood, the, 208, 238; Bengal Relief Committee's Work, 239-242.

Organic Chemistry, Ray on, 171-172.
Ostwald, 69, 172.
Over-production and consequent unemployment, 379-381.

Pakrasi, Ayodhyanath, 30.
Pal, Bholanath, 29.
,, Bhutnath, of Butto Kristo Paul & Co., 93, 106.
Palit, Tarak Nath, 199, 205-206.
Palit Trust Deed, 196.
Paris, Ray at, 134-137.
Pasteur, quoted, 70; 538-539.
Peasantry, of Bengal, 403, 425; ruinous craze of the, 405-406; indebtedness of the, 407.
Pedler, Sir Alexander, 47, 77, 78, 83-84, 112-113, 129-130.
Perkin, 132.
Physical Chemistry, pioneers of, 69; Dhar, Mukherji, Ghosh in, 172-173; Bhatnagar on the researches of, 186-188.
Plassey Drain, 432-435.
Playfair, Lord, 73, 195.
Primer of Zoology in Bengali, 89.
Presidency College, 47, 77; Ray at, 80; new chemical laboratory, 112-113; brilliant group of students, 167; chemical research at, 160-173, 182-183; retirement from, 188; 304, 317-318.
Porcelain manufactory, 319-321.
Prohibition of sea-voyage—its repercussion on Hindu India, 513, 517.
Public Service Commission, recommendations of, 79, 81.

Quasi-political Activity, Ray in, 227-233.

Railway embankments and floods, 236-238; Bentley on, 237.
Rakshit, Jitendra Nath, 167-170.
Raman, C. V., 202, 207.
Ramsay, William, 131, 132, 174, 184.
Raruli, 1, 10; village school, 19.
Rây, Ananda Lal, grandfather, 6; his sradh ceremony, 25.
Rây, B. B., 207.
Rây Chowhuris of Bodhkana, 2.
Rây, D. N., 50-51.
Rây, Haris Chandra, father, 1, 2; intellectual equipment, 8-9; fond of music, 9; acquaintances, 9; his income, 10-11; loan office, 11; for widow-remarriage movement, 24-25; cordial relation with his sons, 27-28; pecuniary embarrassment, 45-46; his death, 109.

Ray, J. N., 193.
Ray, Jatin, 241.
Ray, Manik Lal, the great-grandfather, wealth, 6-7; culture, 9.
Ray, Prafulla Chandra,—
Early life and education :—
Birth, 1; family history, 2-4; mother, 8, 46, 49, 76; ancestral house, 8, 11-12; village school, 19; his first impressions of Calcutta, and his removal, 19-20, 26; relation with his father, 27-28; his intellectual equipment, 27-28; faith and Brahmo Samaj, 30-31.
Hare School, 26, 28-29; the teachers, 41-42; attack of dysentery and eventful year of his life, 31-38; passion for study and learning new languages, 33-38, 305.
Albert School, 39; influence of Brahmo teachers, 42-44; his love of English literature and Krishna Behari Sen, 44.
Metropolitan Institution, 46-48; external student at the Presidency College, 47; blow-pipe incident, 48; Gilchrist scholarship, 48-49.
Departure for Europe, 50-54; at London, 53-54; "Indian robe" incident, 55, 68.
Edinburgh, life at, 56-57, 67, 68, 71.
Edinburgh University, 59-61; Essay competition, 61; his *Essay on India*, 61-67; *London Times* and Bright's letter to, 64; Thesis for doctorate, Hope prize, 68; elected Vice-President of Chemical Society, 68; Doctorate in Inorganic Chemistry, 71; teaching and laboratory work, 70-71; tercentenary, 538-539.
Tour in the Highlands, 71-73.
Home coming, 75; meets mother, 76; dream at Edinburgh, Clairvoyance, 76-77.
Hospitable roof of Dr. and Mrs. Bose, 80.
Career as Professor :—
Appointment at the Presidency College, 80; making of a teacher, 82-84; way of his lecturing, 83, 304, 305.
Research on food-staffs, a paper published, 84-85.
Insomnia and change at Deoghar, 85-87.
Nature Study and Nature Club, 87-89; wrote *Primer of Zoology* in Bengali, 89.
Pharmaceutical preparations and the Bengal Chemical Works, 92-111; purchase of Sodepur Acid Works, 102.
Death of his father, 109.
The new chemical laboratory, 112-113;
Discovery of mercurous nitrite, 113-114; analysis of minerals, 113.
Researches in the history of Hindu Chemistry, 115, 118-119; correspondence with Berthelot and the article in *Journal des Savants*, 115-118.
History of Hindu Chemistry and its appreciations, 119-122.
Hony. D.Sc. of Durham University, 120-121.
Meeting with Gokhale, 123-126; with Gandhi, 124; responsible for Gandhi's first appearance on a Calcutta platform, the Albert Hall Meeting, 127-128.
Second visit to Europe, 129-131; at Davy-Faraday Research Laboratory, 131; visit to research laboratories of Europe,

131-137; dinner at the Royal Society, Edinburgh, 131-132.
Return to Calcutta, 137; "Partition" and awakening of Bengal, 138-139.
"Reorganisation Scheme" and in the proper grade, 158; offered Principalship of Rajshahi College, his refusal, 158-159.
Cunningham incident, 161-163.
Second volume of *History of Hindu Chemistry*, 163-164.
Chemical research in Bengal, 160-161, 167-173; the brilliant group of students, 166-167.
Delegate to the First Congress of the Universities of Empire at London, 173-174, 175-176; paper on ammonium nitrite, read before the Chemical Society; Ramsay, Veley, Roscoe and *Nature* on the paper, 173-174; visit to Cambridge and Sheffield Universities, 176-178; anniversary of the Royal Society and other functions, 178-179; Asutosh Mukherji's letter, 179-180; "at home" on his return, 180-181.
Indian School of Chemistry, slow evolution, 169-170; *Nature* on, 185-186; Dr. Watson and his pupils, 191-192; fresh recruits, 192-194.
Indian Chemical Society, formed, 194-195.
Retirement from the Presidency College, 188-191.
University College of Science, 196; poor equipment and Asutosh's efforts, 196-197, 203; Ghose, Palit and Khaira endowments; Government's attitude, 198-203.
Rây on the "State and the University" at 3rd Congress of the Universities, 204-206; 207.
Quasi-political activity, 228-233.
Social Service Activity :—
Khulna Famine and Relief Work, 234-235.
Bengal Relief Committee and the North Bengal Flood of 1922; 236-242; *Manchester Guardian* and Andrews on, 242-249.
The Sankat Tran Samity, and the recent floods, 249-254.
His daily routine, 213-216.
Active period of his life, 223-226.
Maidan Club, 167, 224, 226.
Men he has seen and heard, 537-539.
Industrial enterprises :—
Bengal Chemical and Pharmaceutical Works, 92, *et seq.*
Sodepur Sulphuric Works, 102.
Calcutta Pottery Works, 337-342.
Bengal Enamel Works, 345-347.
Bangiya Steam Navigation Co., 360.
G. C. Ray & Bros., Publishers and Book-sellers, 535.
Rây, P. K., 50.
Rây, Priyadaranjan, 192-193.
Rây, Ram Mohan, 55, 78; spirited letter to Lord Amherst, 140-141, 294; maker of modern Bengal, 142; 150, 532.
Rây, Taraprasanna, 149.
Reorganisation scheme and the education service, 155, 158.
Research scholarships, 160, 184-185; scholars, 160-161, 167-171, 173, recognition abroad, 182-183.
Richardson, D. L., 2, 29.
River-borne trade in Bengal, 397-398.
Roscoe, 114, 174.
Rosebery, Lord, 175, 537.

Rowlatt Act, agitation, 230-232.
Royal Institute of Science, Bombay, 202-203.
Royal Society, Ray attends the 250th anniversary, 179.
Rungpur, economic condition, 426-427.

Saha, Megh Nad, 167, 182, 196; Saha's equation, 197-198; on Bangalore Institute, 201-202; and floods, 242, 249.
Samachar Darpan, 9; lament of the spinner, 377-378.
Sankat Tran Samity, the, and recent floods, 249-255.
Sanyal, Rambrahma, 89.
Sarkar, Bipin Behari, 89.
,, Nalini Ranjan, 279.
,, Nilratan, 89, 104, 123, 169, 226.
,, Peary Charan, 28.
,, Pulin Behari, 167, 193.
Sarvadhikary, D., 50; delegate to the Congress of Universities of the Empire, 173, 175-176.
Sarvadhikary, Suresh Prasad, 104.
Sastri, Rt. Hon. Srinivas, 125.
Scheele, quoted, 114.
Schelenz, Herman, 121.
Scindia Steam Navigation Co., 351, 353, 355.
Seal, B. N., 163.
Secondary Education, defects in, 289.
Sen, Baikuntha Nath, 337, 342.
,, Hemendra Kumar, 170-171, 194.
,, Hemendra Nath, 337, 342.
,, Indra Narayan, 241.
,, Jatindra Nath, 160.
Sen, Keshab Chandra, 19, 30, influence on Ray, 31; 39, 43; Ray on, 538.
Sen, Krishna Behari, 35, 39-41, 43; his influence on Ray, 44.
Sen, Mon Mohan, 194.
,, N. R., 207.
,, Nagendra Nath, 235.
,, Narendra Nath, 43, 127.
,, Pares Nath, 226.
,, Ramdas, 34.
Sharp, Sir Henry, 198, and Science College, 199.
Sheffield University, Ray's visit to, 177-178.
Sinha, Col. N. P. & Lord, 53.
,, Satishchandra, 107-108.
Singh, B. K., 192.
Sircar, Mahendra Lal, 77, 149; on *History of Hindu Chemistry*, 120.
Smith, Alexander, 60-61.
Smithells, 132.
Social Service Activity, Ray in, 234-250.
Spencer, Herbert, and books, 217, 518; quoted, 363.
Sugar Industry in Bengal, 399-401, 482; Colebrooke and Westland on, 399-400.
Sukkur Barrage Scheme, 415.
Sulphuric Acid Works, Sodepur, 95-96; purchase by Ray, 102; 109-111.
"Sunset Law", 5, 21, 414.
Sutcliffe, James, 29.

Tagore, Devendra Nath, 9, 30, 142.
,, Jatindra Mohan, 9.
,, Rabindra Nath, 33; on, Gandhi & Hindu Society, 531.
,, Sourindra Mohan, 9.
Tanks, excavation of, 14-16.
Tata Iron Works, 318, 328-329; and protection, 480-482.
Tata, J. N., 198, 328, 525.
Tawney, Charles H., 74, 80, 112.

Technische Hochschule, Ray's visit to, 132, 332.
Technology before Industry, 316, case of China, 319, 322-324; in India, 329, 331-333; 335.
Thenard, 134, 164.
Thomson, Sir Joseph, 175.
Thrope, Sir Edward, 225.
Time, use and misuse of, 208 *et seq.*
Travers, 110-111, 131.
Troost, President M., 135-136.
Trusts and Dumping, 325-327.

University, the true functions of a, 299-309.
University College of Science, 196 *et seq.*
University education, insane craze for, 259 *et seq.*; a handicap to success in business, 271-282.
University graduates *v.* self-taught men, 264-271.

Van't Hoff, 69; Ray with, 132-133; 172.
Veley, V. H., 174.
Vernacular, neglect of, 292-294.
Vidyabagis, Mohanlal, 24.
Vidyasagar, Iswar Chandra, 9, 46; for modern Bengali literature, 145-146.
Village life, early, 409-411.
Volhard, 114.

Waldie & Co., D., 94-95.
Walker, James, 60, 68, 132.
Watson, Prof., 182, his pupils, 191.
West, M., on bilingualism, 292, 295-296.
Western civilisation and our ruin, 370-374.
Westland, quoted, 14-15; on sugar industry of Bengal, 399.
Whiteman's Burden, 254, 416.
Willcocks, W., on Bankura, 417-418.
Windsor Palace, reception at, 179.
Wynne, Prof., 195.

Young, Captain of S. S. *California*, 50-52.

Zeitschrift für anorganische, 134.
Zurich polytechnic, Ray's visit to, 134.

LIFE AND EXPERIENCES OF A BENGALI CHEMIST

VOLUME II

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PREFACE

In the preface to the first volume of this work it was mentioned that "a large mass of materials has been left out" and that "if circumstances prove favourable a supplementary volume may come out later on." I have now the satisfaction of presenting the second and concluding volume, which, for aught I know, may prove to be my swan-song.

It was with considerable diffidence, nay with fear and trembling, that I presented the previous volume to the public, but I was somewhat agreeably surprised at the favourable reception accorded to it not only in India but also in England and America. As a chemist I consider myself an international property and some critics have naturally hinted at the large amount of space devoted to matters which might be considered as extraneous and foreign to the life of a chemist, pure and simple. I submit, however, that those who have closely watched my career will not have failed to notice that I have been something more than a mere chemist. True it is that throughout my active career, now extending over half-a-century, I have served Chemistry as the Goddess of my idolatry ; to her I have been a whole-hearted devotee, and even at this advanced age she claims me as her own. But it should not be forgotten that the present volume and its predecessor include my "life and experiences." This is my apology for the presentation of the diverse activities connected therewith.

Social and economic problems relating to India and especially to Bengal have always claimed a portion of my attention, and thus what I have written is inextricably interwoven with my life and experiences. If now and then I have been drawn into realms which might be considered as political it is because, as Professor Bowley observes, *"economic and political events cannot be disentangled."*

As an educationist I have devoted considerable space in this volume to matters educational. I have traced its progress

since the beginning of British rule in India and have been unsparing in criticising the wrong direction it has taken to the serious detriment of the future prospects of our young hopefuls, who have been accustomed to look to an academic career alone as a passport to success in life.

The saying is generally ascribed to that prince of diplomats, Talleyrand, that language was given to man to disguise his thoughts ; the student of science, however, cannot agree with the above dictum and he is inclined to call a spade a spade. Hence my considered opinions on a variety of subjects dealt with in these volumes have been freely expressed and sometimes, I am afraid, with brutal candour.

I have reproduced *verbatim et literatim* several passages from my essay on India published half-a-century ago. It is sad to reflect that there has been no material change of policy of the British Government during the last fifty years ; any change that has occurred is only a *change for the worse* as evidenced by the New Constitution. The problems—social and economic—which were acute then have become acuter still.

It now remains for me to express my indebtedness to Professor J. C. Ghosh, Head of the Department of Chemistry, Dacca University, for many useful hints and criticisms. Dr. P. K. Bose, my colleague and ex-pupil, has laid me under a deep debt of obligation by taking upon himself the arduous task of looking through the proofs and preparing the table of contents and the index. He has also furnished me with many valuable suggestions.

October, 1935.
UNIVERSITY COLLEGE OF SCIENCE
AND TECHNOLOGY,
CALCUTTA.

P. C. R.

CONTENTS

Impact of West with East.

PAGE.

CHAPTER I 1

Earliest Government Educational Institutions—The College of Fort William—Charter of 1813—Education Grant of £10,000—Lord Minto's Lamentation—Orientalism favoured—Missionary Effort—Jaynarayan Ghosal—The Serampore Missionaries—The Vidyalaya—Derozio and his Pupils—David Hare and the Hindu College—Scottish Church and Alexander Duff—Controversy between Anglicists and Orientalists—Committee's Reply to the Strictures—Lord Amherst on the Horns of a Dilemma—Spread of Useful Knowledge through the Medium of Vernacular—Familiarity with European Literature and Employment—The last Rally of the Orientalists—Macaulay's famous Minute of 1835—Macaulay not Originator of English Education—Conclusion.

CHAPTER II 36

Mass Education and Creation of Vernacular Literature—Carey's great Services—The Calcutta School Book Society and School Society—The Calcutta Committee and Vernacular Literature—The Calcutta Committee and Mass Education—Adam's Report—Substitution of Vernacular for Persian—Lord Auckland and Mass Education—Proposal for Founding a University in Calcutta—Failure of the Moslems—Presidency College—Foundation of the Medical College—Charter of Indian Education—Medium of Education.

CHAPTER III 59

Wastage of Time and Energy of our Youths—Vernacular as the Medium of Instruction—Calcutta University and Vernacular Medium—Medium of Instruction and Development of Intelligence—Classical Education and Development of Intelligence.

CHAPTER IV 71

Neglect of Primary Education and its Effect on the Masses—Literacy in Soviet Russia—Primary Education in Italy and Japan—Press in Japan and China—Denmark and Mass Education—Modern Italy and Agricultural Improvements—Bengal Government and Primary Education—Illiteracy and its Effect on the Agriculturists.

PAGE.

CHAPTER V 85
Educational Backwardness of the Moslems of Bengal—Moslems oppose English Education—Educated Moslems and Madrassas—Catholicity of the Hindus—Hindus and Moslems ethnologically identical—Calcutta Corporation and Primary Education—Bengal Primary Education Act.

APPENDIX 104
Medium of Instruction—Minutes by Sir E. Perry, J. S. Sett, Colonel Jervis—Government of Bombay on Medium of Instruction—Sir E. Perry on Government Policy—Minute by J. P. Willoughby—Views of Thomas—Minute by J. E. D. Bethune—Educational Despatch of 1854—Pathetic Appeal for Mass education.

SOCIO-ECONOMIC PROBLEMS.

CHAPTER VI 112
The Mentality and Psychology of the Youth of Bengal—Danger of Modern System of Education—Shaw and Barrie—The Value of College Life—Youth Movement and Mass Education in China—Why the Bengalis fail?—Realism *vs.* Idealism—Culture and Money-making.

CHAPTER VII 136
Neglect of Sanitation and Irrigation—A Chapter from the Whiteman's Burden—Malaria and the Railways—Malaria in Italy and Angora—Effects of Malaria on Society—The great Quinine Mystery—Tuberculosis in Bengal—Death-rate in India—Government and Sanitation.

CHAPTER VIII 156
Havoc caused by Floods—Causes of Floods—Water-logging of Calcutta Suburbs—Floods in Midnapore and Orissa—Man-made Malaria—Problem of Rivers in Bengal—Railways and Deterioration of Rivers—Bengal in Death Grip.

POLITICO-ECONOMIC.

CHAPTER IX 167
Military Expenditure : A Huge Burden on the People of India —How has India been "Bled White"—Crushing Military Burden on India—Mercenary Army *vs.* National Army—Military Expenditure in India and Elsewhere—Indianisation and Retrenchment.

PAGE.

CHAPTER X 182
Orgy of Extravagance—Construction of New Delhi—India, a Land of Contrast—Salaries in India and Elsewhere Princely Extravagance—Public Debt of India—Income of Agriculturists—Distress in Bengal—British Investments in India—Analysis of the Budget of Bengal—Bengal penalised—Creation of New Provinces: Its Origin and Psychology.

CHAPTER XI 223
Emasculation and Demartialisation of the Indian People under British Rule—Policy of Pathan Kings and the Subadars—Ostracism of Indians from Responsible Posts—No Freedom for Indians.

CHAPTER XII 23
A Glimpse into India before and after the British Occupation—Pre-British Bengal—Bengal during the Reign of Aurangzib—Bengal as she is today.

CHAPTER XIII 248
Imperialism, Ancient and Modern—British Imperialism—Ottawa Pact—Tea and Coffee—Fall of Empires—Growth of Nationalism in India.

COMMUNALISM.

CHAPTER XIV 265
Communalism in the Twentieth Century due to Sinister Influence of British Imperialists—Divide and Rule—Separate Electorate—Separate Electorate for Depressed Classes—Nationalist Muslims on Separate and Joint Electorates—Death-Knell of Nationalism—*Quo Vadis* Muslims?—The Muslim League.

CHAPTER XV 289
Communalism Practically Unknown before the Dawn of the Twentieth Century—An Historical Retrospect—Sur Dynasty—Bengal under the Nawabs—Spirit of Toleration in India and in Europe.

MISCELLANEOUS.

CHAPTER XVI 300
Law and Its Administration—Dilatoriness of British Law—Administration of Criminal Justice—Administration of Justice during the Muslim Rule in India.

PAGE.

CHAPTER XVII 318
Expensive Habits of our University Students—Residential Hostels and Westernisation—Student Life in Prague—Residential University—The Gurukula.

CHAPTER XVIII 333
Drain of the Wealth of the Land due to European Standard of Living—Perils in a Cup of Tea—The Automobiles.

CHAPTER XIX 344
Scientific Specialization and Narrow Outlook—Failure in Life.

CHAPTER XX 351
Old Age—How to battle against it—Senile mental Changes—Old Age and Productiveness—A Physician's Receipt for Longevity—Youth *vs.* Age.

CHAPTER XXI 371
Half a Century and After—Inorganic Chemistry and its Infinite Possibilities—The Rôle of Accident in Science—Facsimile of Handwriting of 1882, 1886 and 1935.

CHAPTER XXII 387
The New Constitution and Nascent National Industries—Mortgaging the Economic Resources of India—Drain of the Mineral Wealth of the Country—India *vs.* Persia in the Disposal of Mineral Wealth.

CHAPTER XXIII 398
The Bengal Chemical and Pharmaceutical Works Ltd.—A Page from the Diary of 1893-94—Dangers ahead—Bengalis and Indians in General in Business—Causes of Their Backwardness and Failures.

CHAPTER XXIV 409
Verdict of History—Conclusion.

APPENDIX 423
Notes (*a*) on Communalism—(*b*) on Prime Minister's Award—(*c*) on University Education—(*d*) on the Budget of Bengal—(*e*) on the Police Budget—(*f*) on the New Constitution—(*g*) on "Indigenous Peace, Liberty and Justice" and Military Expenditure—(*h*) on Failure of Educated Boys in Industry—(*i*) on British Imperialism—(*j*) on Economic Distress in Bengal—(*k*) on Educational Activity of my Father—(*l*) Concluding Remarks.

INDEX 461

IMPACT OF WEST WITH EAST[1]

CHAPTER I.

If it had been intended to keep the British nation in ignorance of real knowledge, the Baconian philosophy would not have been allowed to displace the system of the schoolmen, which was the best calculated to perpetuate ignorance. In the same manner the Sangscrit system would be the best calculated to keep this country in darkness, if such had been the policy of the British Legislature. But as the improvement of the native population is the object of the Government, it will consequently promote a more liberal and enlightened system of instruction, embracing mathematics, natural philosophy, chemistry and anatomy, with other useful sciences which may be accomplished with the sum proposed, by employing a few gentlemen of talents and learning educated in Europe, and providing a College furnished with the necessary books, instruments and other apparatus.—RAM MOHUN ROY: *Letter to Lord Amherst, 1823.*

It is one of the most unintelligible facts in the history of English education in India, that at the very time when the Natives themselves were crying out for instruction in European literature and science, and were protesting against a continuance of the prevailing orientalism, a body of English gentlemen appointed to initiate a system of education for the country, was found to insist upon the retention of oriental learning to the practical exclusion of European learning.—HOWELL.

Warren Hastings, whose equanimity and versatility excite the admiration of Macaulay, was the first British ruler of India who recognised the necessity of encouraging learning, both among the young civil servants and the people under his charge.

[1] For the materials of this article, I am chiefly indebted to the following books :—

Selections from Educational Records, Part I (1781—1839) by H. Sharp.

Selections from Educational Records, Part II (1840—1859) by I. A. Richey.

Education in British India by Arthur Howell (1872).

To avoid a break in the narrative, page references to extracts have not been given. A good deal of this section is an amplification of what I wrote fifty years ago in *India*, 1886.

Although the home authorities, in their infinite wisdom, had established a Crown Court in Calcutta, to "administer English law on the model of the Courts in Westminster," it was found impossible to obey their commands in their entirety. The rulers on the spot found it absolutely necessary to enquire into the customs of the people, as sanctioned by their religions, their laws of inheritance, and so forth. This could not be done without a knowledge of the Shastras and the Koran. Thus it was that the *moulvis* and the *pandits* became the referees of the English judge, who, before he had touched the soil of India, had probably in all simplicity and innocence concluded that the Orientals had stolen the principles of their jurisprudence from Justin and Alfred. The appointment of Sir W. Jones, who had already acquired proficiency in Arabic and Persian, as a puisne judge of the Supreme Court, brought about the advent of a new era. The occult lore of the Brahmins, the hidden treasures of the East, were now to be unlocked and poured forth into the West. Warren Hastings, who himself had a fair acquaintance with Persian, could not fail to appreciate the researches of the great linguist.

I—Earliest Government Educational Institutions.

The first educational institution established in India by the British Government was the Calcutta Muhammadan College or Madrassa founded in 1780, at the request of several Muhammadans of distinction, by Warren Hastings, who purchased a piece of ground for the erection of a suitable building for it at his own expense amounting to Rs. 5,641/-. The monthly cost of the College was Rs. 625/-, which was also defrayed by the Governor-General until 1782, when he was reimbursed and the institution taken over by the Government.

The general object of the founder was to conciliate the Muhammadans of Calcutta, and through the learned Moulvies to teach Arabic and Persian with the whole range of Muhammadan religion, including theology and the ritual observances. The main and special object of the institution was to qualify

the sons of Muhammadan gentlemen for responsible and lucrative offices in the State, even at that date largely monopolised by the Hindus, and to produce competen officers for the Courts of Justice to which students from the Madrassa, on the production of certificates of qualification, were to be drafted as vacancies occurred.

The next attempt on the part of the British Government was initiated in 1793 by Mr. Jonathan Duncan, Resident at Benares, who founded the Benares Sanskrit College as a means of employing beneficially for the country some part of the surplus revenue over the estimated receipts. This College was designed to cultivate the "laws, literature and religion of the Hindus," to accomplish the same purpose for the Hindus as the Madrassa for the Muhammadans, and specially to supply qualified Hindu Assistants to European Judges. The expense for the first year was limited to Rs. 14,000/-, later on augmented to Rs. 20,000/- annually by the orders of Government on the 13th January, 1792, in which Lord Cornwallis expressed his entire approval of the measure.

II—The College of Fort William.

The next important step is the establishment of the College of Fort William which was actually in operation from May 4, 1800, but was formally opened on August 18, by a Minute in Council in which the Governor-General detailed at length the reasons for starting such an institution.

The Company's Civil Service, although it produced a few men of first-rate ability, (*e.g.* H. T. Colebrooke) had sunk into the lowest depths of vice and ignorance. The Service had its origin in a mercantile staff, well-versed in the mysteries of the counting house; and its training, since the Factory had grown into an Empire, had not been sufficient for the more important duties which now devolved upon it. The system which Burke had reprobated fifteen years ago was still unchanged, and lads of fifteen to eighteen were being sent out to India before their education could be finished, with no opportunity or inducement on their arrival to complete it.

Of the languages and manners of the people whose affairs they were called upon to administer, they were not required to know even the rudiments.[2] The Minute denounced in the strongest terms "the absolute insufficiency of this class of young men to execute the duties of any station whatsoever in the Civil Service of the Company beyond the menial, laborious and unprofitable duty of a mere copying clerk."

* * * * *

The Minute then declares that "a College is hereby founded at Fort William in Bengal for the better instruction of the Junior Civil Servants of the Company".[3]

Carey was appointed teacher of Bengali and Sanskrit languages in April, 1801. On January 1, 1807, he was raised to the status of a Professor and he continued till 1831 to be the most notable figure in the College of Fort William. Of the achievements of Carey in the domain of Bengali prose-writing there will be occasion to relate later on.

Although it is hardly relevant to the general history of educational development in India, the College of Fort William deserves some mention as a striking educational institution of the time and as the subject of various interesting documents. The Marquis of Wellesley, impressed with the "sloth, indolence, low debauchery and vulgarity," which too often grew upon the younger servants of the Company, decided that they should have a proper education in Calcutta.

The Court of Directors took strong exception to the foundation of this expensive institution, which narrowly escaped immediate extinction. In 1806 the East India College at Haileybury was founded, whence the writers proceeded to the College at Fort William.

To trace any recognition on the part of the authorities in England of a feeling of duty in the matter of diffusing education in India, we must go back to an earlier period.

[2] It appears from the proceedings of the Governor-General in Council, dated as far back as September 10, 1790, that with a view to the acquisition of the Indian languages by the Company's writers, encouragement was afforded by offering them allowance and other facilities (Seton-Karr : *Selections from Calcutta Gazette,* ii, pp. 213-14), but it was never enjoined upon them as a matter of duty or necessity.

[3] The College continued till 1854; but since the foundation of Calcutta School Book Society and Hindu College in 1817, its importance was overshadowed and diminished.

It is curious that the present system of Government education, which has been consistently based on strict religious neutrality, first publicly declared by Lord Wellesley in 1804, originated in an association of education with missionary enterprise. The association was natural enough in England, where, until recently, the office of priest and schoolmaster has been considered inseparable, and where interference by the State in public education was resented as an intrusion upon the Church. In 1793, on the renewal of the Company's Charter, Mr. Wilberforce, instigated by Mr. Charles Grant, succeeded in carrying through Parliament a resolution to the effect "that it is the peculiar and bounden duty of the British Legislature to promote, by all just and prudent means, the interest and happiness of the inhabitants of the British dominions in India ; and that for these ends such measures ought to be adopted as may gradually tend to their religious and moral improvement."

III—Charter of 1813—Education Grant of £10,000.

But after the battle of Plassey and during the next thirty years—the darkest period of Anglo-Indian history—the Company's servants seem to have felt a constant apprehension of losing all the fruits of the victory as suddenly as they were acquired, and no proposal excited more alarm than one involving any real or supposed interference with native religious prejudices. To show the general feeling at the time, it is enough to mention that in 1808 one of the most intelligent officers in the Company's service, then Resident at a Native Court, deemed it to be "madness" to attempt the conversion of the natives of India, or to give them any more learning or any other description of learning than what they then possessed. "The Hindus," he said, "had as good a system of faith and of morals as most people"; and with regard to the Mussalmans, "it is quite sufficient if we endeavour to conciliate their confidence and to mitigate their vindictive spirit."

In 1813, when the further renewal of the East India

Company's Charter was discussed, it was felt necessary to obtain local information about the great dependency, specially on the subject of the state and need of education or missionary enterprise, and the House resolved itself into a Committee for this purpose. Among the witnesses examined were Warren Hastings, then in his 80th year, Lord Teignmouth, Sir John Malcolm, Sir Thomas Munro, and a host of minor Indian celebrities, but the evidence was generally in strong opposition to educational or missionary efforts being undertaken or even recognised by the State. And it is remarkable that so far from thinking that any measures for the enlightenment of the people of India ought to be originated in England, the general tenor of the evidence of the old Indian was that any such measures would be in the highest degree dangerous. Indeed, Sir Thomas Munro did not hesitate to declare his conviction that "if civilisation were to become an article of trade between the two countries, England would be the gainer by the import cargo."

Again, in 1811, a worthy of the name of Sir John Anstruther, who had been once Chief Justice of the Calcutta Supreme Court, and who, on his return home, had secured a seat in Parliament, inquired with surprise and horror "whether it was really meant to illumine the people of India, and whether it was really desirable to do so" ; the prevailing idea was that diffusion of Western sentiments was incompatible with the preservation of the newly acquired empire in Asia.

Better counsels, however, prevailed. In the renewed Charter that resulted from these discussions, a clause was inserted on the motion of Mr. Robert Percy Smith, a Member of Parliament and late Advocate-General at Calcutta, and was sanctioned by the Earl of Buckinghamshire, then President of the Board of Control, providing that "it shall be lawful for the Governor-General in Council to direct that out of any surplus which may remain of the rents, revenues and profits," after defraying all Civil and Military charges, "a sum of not less than one lakh of rupees (£10,000) in each year shall be set apart

and applied to the revival and improvement of literature and the encouragement of the learned natives of India, and for the introduction and promotion of knowledge of the sciences among the inhabitants of the British territories of India".

The general interest in education, which had been aroused in England by the labours of Bell and Lancaster in 1797, had shown itself in the establishment of the British and Foreign School Society in 1805, the National Society in 1811, and petitions addressed to Parliament during the discussion of 1813, naturally commenced about this time to have influence in the direct administration of India.

IV—Lord Minto's Lamentation.

On the 6th March, 1811, Lord Minto (Governor-General, 1807-13), instigated by Sir H. T. Colebrooke, an eminent oriental scholar then in Council, recorded an elaborate minute lamenting the decay of science and literature in India, consequent on the want of the encouragement formerly afforded to them by Native Governments, and urging the establishment of two new Sanskrit Colleges at Naddea and Tirhut. In the same minute Lord Minto admitted the equal claims of the Muhammadan community on behalf of Persian and Arabic literature; but he felt unable to recommend any further measures until the orders of the Court of Directors had been received upon his original proposals. The Governor-General's benevolent designs were approved by the Court of Directors in 1814, and were entrusted to a Committee of Superintendence formed from the local officials in Naddea and Tirhut; but probably owing to the accession of a new Governor-General, no further steps were actually taken to carry them out until they were revived by another eminent Sanskrit scholar, Mr. H. H. Wilson, in 1821, when, instead of the two projected Colleges, it was determined to establish a Hindu Sanskrit College in Calcutta on the model of the Benares College, with an annual Government grant of Rs. 25,000/-.

V—Orientalism Favoured.

On the 3rd June, 1814, the Court of Directors issued their first educational despatch, relative to the disposal of the lakh of rupees.

The Court does not appear to have formed a very definite opinion of the learning that was to be encouraged and of the sciences that were to be promoted, but such instructions as were given were all in favour of orientalism.

"We are informed that there are in the Sanskrit language many excellent systems of ethics, with codes of laws and compendiums of the duties relating to every class of the people, the study of which might be useful to those natives who may be destined for the Judicial Department of Government. There are also many tracts of merit, we are told, on the virtues of plants and drugs and on the application of them in medicines, the knowledge of which might prove desirable to the European practitioner ; and there are treatises on astronomy and mathematics, including geometry and algebra, which, though they may not add new light to European science, might be made to form links of communication between the natives and the gentlemen in our service who are attached to the Observatory, and to the Department of Engineers, and by such intercourse the natives might gradually be led to adopt the modern improvements in those and other sciences.

"With a view to these several objects, we have determined that due encouragement should be given to such of servants in any of those departments as may be disposed to apply themselves to the study of the Sanskrit language and we desire that the teachers, who may be employed under your authority for this purpose, may be selected from those amongst the natives who may have made some proficiency in the sciences in question, and that their recompense should be liberal."

VI—Missionary Effort.

From 1813, owing to the causes above stated, the Indian Government seem to have had no settled policy or even intention on the subject of education, but several disjointed efforts

are worth recording. In 1814 a High School was established by a Missionary, Mr. Robert May, at Chinsurah, and some smaller schools were affiliated to it. This school was conducted with such success that, in 1816, a Government grant of Rs. 600/- per month (afterwards augmented to Rs. 800/-) was sanctioned for it. This appears to have been the first grant-in-aid made on the principles now in force. In November, 1814, the Collector of Cuttack submitted to the Governor-General in Council several documents relative to a claim set up by Moulvi Abdul Karim to a pension or payment of one rupee per diem, which had been allowed by the former Government as a charitable allowance for the support of a school in the district of Hijeli. The Government authorised the payment of the pension with arrears.

VII—Jaynarayan Ghosal—Eminent Bengali Pioneer of Education in Northern India.

In the same year (1814), the Benares Charity School was founded from the interest of Rs. 20,000/- deposited by Jaynarayan Ghosal, an inhabitant of Benares, with an addition of a monthly grant of Rs. 252/- from Government. In this school English, Persian, Hindustani, and Bengali were taught with reading and writing, grammar and arithmetic, together with the Government regulations, general history, geography and astronomy.

As no account of English education in India can be complete without a history of Jaynarayan's, I make no apology for inserting it here. It is culled from a brief report kindly furnished by Principal P. Russell[4] who very properly observes that "his High School might claim to be the oldest English teaching school in the whole of Northern India." Its origin reads like a romance when it is borne in mind that its founder was an orthodox Hindu and that he anticipated even the precursors of western education like Ram Mohun Roy.

"Maharaj Jaynarayan Ghoshal, of a well-known Bengali family, left

[4] The present Head of the School.

his home in Calcutta towards the close of the eighteenth century, in bad health, and came, like a pious Hindu, to Benares to die.

"This was in 1814; and during the four succeeding years Jaynarayan was in consultation with Daniel Corrie as to how to place the school on a permanent and proper foundation."

EXTRACT FROM JAYNARAYAN'S OWN ACCOUNT.

"From the information communicated by him (Corrie) respecting the Church Missionary Society and from a perusal of one of that Society's reports which he gave me, I determined upon making the Calcutta Committee of the Church Missionary Society the Trustees of my school and assigning to them the property which I had appropriated for the endowment of it. Accordingly I have requested them to undertake the trust, and legal measures are in progress for transferring the school endowment permanently into their hands. In the meantime my house in Bengalee Tolah, which cost me in building Rs. 48,000, has been appropriated for a school house and Mr. Adlington has begun to give instruction in the English tongue. Thus what I have been many years desiring, begins to be accomplished. But I long greatly that the most effectual means may be used for enlightening the minds of my countrymen. I am therefore anxious to have a Printing Press also established at Benares, by which school books might be speedily multiplied and treatises on different subjects might be printed and generally dispersed throughout the country. Without this the progress of knowledge must be very slow and the Hindoos long remain in their very fallen state, which is a very painful consideration to a benevolent mind. I therefore most earnestly request the Hon'ble Church Missionary Committee to take measures for sending out a Printing Press to Benares with one or two suitable Missionaries to superintend it—men of learning who may be able to satisfy the enquiries of the learned of this ancient city on subjects of Science and History as well as of Religion. From the reception which the labours of the Missionaries of Serampore and of the School Book Society in Calcutta met with, I know how welcome to my countrymen such an establishment at Benares would be; and as the Hon'ble Church Missionary Society liberally expends its funds for the benefit of mankind, there is no place where their labours are likely to be more beneficial than at Benares and I earnestly hope they will not be backward to assist the efforts that I am making here." (August 12, 1818).

VIII—THE SERAMPORE MISSIONARIES—THE GREAT TRIO.

About this time a new stimulus began to be applied to the cause of education in India of a nature which has been

steadily increasing in power from that day to this, which is growing and of which it is impossible to foresee the result. Towards the end of 1799, two Baptist Missionaries, Marshman and Ward, of small means and humble origin, landed in Calcutta with the intention of joining Mr. Carey, who had been deputed thither by the same Society about six years previously. Being provided with no license from the East India Company, and fearful of being sent back to England, they settled themselves in the small Danish Settlement of Serampore.

On his return from the North-Western Provinces, Lord Moira issued, on the 2nd October, 1815, a minute declaring his solicitude for the moral and intellectual condition of the natives, and his anxiety to see established and maintained some system of public education. He thought that the humble but valuable class of village schoolmasters claimed the first place in the discussion and that the efforts of Government should be directed to the improvement of existing tuition. The minute was followed by a direct application to the Court of Directors for permission to encourage schools formed on principles altogether different from the Oriental Institutions which alone, up to that date, had enjoyed the regular support of Government. In November, 1815, Lord Moira visited the little colony at Serampore, a step worth recording as the first kind of direct encouragement which missionary effort on behalf of education had received from a Governor-General of India.[5]

[5] The sudden intellectual awakening in Bengal and the consequent demand for education had called into existence many private schools. Most of these private schools, whence emerged many of the distinguished men of the day, were set on foot by Anglo-Indians who seized upon this new profession as a godsend. In these schools Anglo-Indian and Indian students sat side by side, their interests for the moment identical—the eager pursuit of knowledge that should equip them in their struggle to keep pace with the rapid progress of the times. William Sherbourne, son of an Englishman and a Brahmin mother, was one of the first Anglo-Indians to take pride in his birth, and the school that he opened in a house in the Chitpore Road was long famous as one of the most successful seminaries of the day.—Bradley-Birt: *Poems of Derozio*, p. xviii.

IX—The Vidyalaya.

Lord Moira's minute of 1815 was followed by the establishment of the Vidyalaya or Anglo-Indian College in Calcutta. The foundation of this College marks an important era in the history of education in India as the first spontaneous desire manifested by the natives of the country for instruction in English and the literature of Europe. This was the first blow to Oriental literature and science heretofore exclusively cultivated in the Government Colleges. The new institution was started at a meeting of many of the leading Natives of Calcutta at the house of the Chief Justice, Sir Hyde East, who has left an interesting account of the origin of the project and of the original rules drawn up for its management. The further peculiarity of the College was its being designed "primarily for the sons of respectable Hindus," and entirely under Native superintendence—the funds amounting to nearly a lakh of rupees being voluntary contributions by the projectors of the scheme. Dr. Duff's account of these proceedings may best be given in his own words.

"English education was in a manner forced upon the British Government; it did not itself spontaneously originate it. The system of English education commenced in the following very simple way in Bengal. There were two persons who had to do with it,—one was Mr. David Hare, and the other was a Native, Rammohun Roy. In the year 1815 they were in consultation one evening with a few friends as to what would be done with a view to the elevation of the Native mind and character. Mr. David Hare was a watch-maker in Calcutta, an ordinary illiterate man himself; but being a man of great energy and strong practical sense, he said, the plan should be to institute an English school or college for the instruction of native youths. Accordingly he soon drew up and issued a circular on the subject, which gradually attracted the attention of the leading Europeans, and, among others, of the Chief Justice, Sir Hyde East. Being led to consider the proposed measure, he entered heartily into it, and got a meeting of European gentlemen assembled in May, 1816. He invited also

some of the influential natives to attend. Then it was unanimously agreed that they should commence an institution for the teaching of English to the children of the higher classes, to be designated "The Hindoo College of Calcutta." A large joint committee of Europeans and Natives was appointed to carry the design into effect. In the beginning of 1817, the college, or rather school, was opened, and it was the very first English seminary in Bengal, or even in India, as far as I know."

It reflects no small credit on the Hindus, that long before England had learned to do anything of the kind, they themselves had founded a college at Calcutta, by their "own voluntary contributions, for the instruction of their youth in English literature and science."[8]

The result of introducing the wide range of European literature and science into the native community at Calcutta was to open a new, strange world to the students. As Greek literature was in the Augustan age at Rome, or as Latin and Greek were at the mediæval revival of letters in the Western world, so English became to the young collegians. Every day opened to them for the first time, a succession of new and strange phenomena in the unsealed realm of history, science, and philosophy ; they were suddenly thrown adrift from the moorings and anchorages of old creeds, and tossed upon the wide sea of speculation and extravagance. It was no wonder that moral and social obligations began to share the fate of religious beliefs, and that the whole community was in alarm at the spread of the new views. This was precisely the state of things which Mr. Charles Marsh had eloquently anticipated during the discussion of the Charter of 1813 :—"It is one thing," he said, "to dispel the charm that binds mankind to established habits and ancient obligations, and another to turn

[8] C. E. Trevelyan : *Education in India* (1838). Also : "The wealthy Hindus have just set on foot a school or college without any aid or countenance from Government, who (very wisely, I think) have wished the work to be done by themselves. . . . . The Superintendent is a military officer, and the only Englishman connected with the establishment."—La Bas's *Life of Bishop Middleton*, Vol. I. Ed. 1831, p. 391.

them over to the discipline of new institutions and the authority of new doctrines. In that dreadful interval,—that dreary void where the mind is left to wander and grope its way without the props that have hitherto supported it, or the lights that have guided it,—what are the chances that they will discern the beauties or submit to the restraints of the religion you propose to give them?"

The Committee of Public Instruction was quick in appreciating the valuable work of this college and in one of its reports observed:—"In addition to the measures adopted for the diffusion of English in the Provinces, and which are yet only in their infancy, the encouragement of the Vidyalaya, or Hindoo College of Calcutta, has always been one of the chief objects of the Committee's attention. The consequence has surpassed expectation,—a command of the English language, and a familiarity with its literature and science have been acquired to an extent rarely equalled by any schools in Europe. A taste for English has been widely disseminated, and independent schools conducted by young men, reared in the Vidyalaya, are springing up in every direction. The moral effect has been equally remarkable, and an impatience of the restrictions of Hindooism, and a disregard of its ceremonies, are openly avowed by many young men of respectable birth and talents, and entertained by many more who outwardly conform to the practices of their countrymen. Another generation will probably witness a very material alteration in the notions and feelings of the educated classes of the Hindoo community of Calcutta."

X—Derozio and His Pupils.

The effect of the teaching in the Hindu College on Young Bengal, specially that imparted by Derozio[1]—the Eurasian boy, poet and philosopher of nineteen years of age—is vividly

[1] Henry Louis Vivian Derozio was born in 1809 and joined the Hindu College in 1828 when he was barely 19. As far as precocious development is concerned he may be compared to Chatterton, "the fate marked babe", who composed the Rowley Poems and died at the age of 18. Derozio died in 1831.

described in the *Life and Times of Ramtanu Lahiri* by Sivanath Sastri, translated from Bengali by Sir Roper Lethbridge, from which short extracts are given below :

"It was customary then to send to the Hindu College such boys from the Society's school as had creditably completed their course there.

"The well-known Mr. Henry Vivian Derozio was the master of this class. This young man was gifted with extraordinary talents. This much we say now, that he introduced a new epoch in the intellectual and moral history of Bengal, and moulded, when they were boys, the character of men like Ramtanu Lahiri, Krishnamohan Banerji, Rasik Krishna Mullick, Dakshinaranjan Mukherji and Ram Gopal Ghosh. Though he taught the fourth class alone, he was friendly with almost all the students of the college.

"Mr. Derozio's house had a great attraction for these young lads. There they had learnt much and enjoyed much. Ideas quite novel were so presented before their minds that they could easily grasp them. Not only were their intellects sharpened, but their views with regard to their moral duties too were expanded under his influence. The hitherto impregnable stronghold of prejudice and superstition was adroitly attacked by him ; and Hindu lads, brought up from infancy in the belief that the society of a Christian is contaminating, and that the food touched by him or prepared in his house is so defiling as to hurl him who ate it to the lowest depths of hell, broke asunder the shackles of caste, and freely ate with their Eurasian friend.

"In a year Mr. Derozio gained so great an ascendancy over the minds of his pupils that its effects were visible on all their thoughts and actions.[8] Babu Hara Mohan Chatterjee, at that

[8] Recognized at eighteen, even among the select little inner circle of intellectuals who then held sway in Calcutta, as a poet and writer of outstanding ability, he wielded an influence among his own contemporaries and over the younger students of his day, that, even allowing for the spell of his compelling personality, can only be regarded as amazing. To all with whom he came in contact he made the same magnetic appeal. Beneath the impulsiveness and vivacity and enjoyment of the boy there lay the depth and strength and broad-mindedness of the man, and it was

time clerk of the Hindu College, writes on this point, and we quote his very words:

"The students of the first, second and third classes had the advantage of attending a conversazione in the school held by Mr. Derozio, where readings in poetry, literature, and moral philosophy were carried on. The meetings were held almost daily, before or after school hours. Though they were without the knowledge or sanction of the authorities, yet Mr. Derozio's disinterested zeal and devotion in teaching the students these subjects were characterised by a noble philanthropy. The students in return loved him most tenderly, and were ever ready to be guided by his counsels, and imitate him in all their daily actions. In fact, Mr. Derozio gained so great an ascendancy over the minds of his pupils, that they would not move even in their private concerns without his counsel and advice. On the other hand, he fostered their taste in literature, taught the evil effects of idolatry and superstition, and so far reformed their moral feelings as to place them completely above the antiquated ideas and aspirations of the age. Such was the force of his instruction, that the conduct of the students out of the college was exemplary. It gained them the applause of the world, from the literary and scientific point of view and also, what was of greater importance, they were all considered men of truth. Indeed, it was a general belief and saying amongst our countrymen, which those who remember the time must acknowledge, that 'such a boy is incapable of falsehood, because he is a college boy.' "

Derozio's *Sonnet to the Pupils of the Hindu College* admirably describes with pathos the almost paternal interest with which he watched them:

> Expanding like the petals of young flowers
> I watch the gentle opening of your minds,
> And the sweet loosening of the spell that binds
> Your intellectual energies and powers,

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this happy combination of the grave and gay, of the spontaneity of youth and the wisdom of age, that constituted something of the secret of his wonderful charm.—Bradley-Birt: *Poems of Derozio.*

That stretch (like young birds in soft summer hours)
Their wings, to try their strength. O, how the winds
Of circumstances, and freshening April showers
Of early knowledge, and unnumbered kinds
Of new perceptions shed their influence;
And how you worship truth's omnipotence.
What joyance rains upon me, when I see
Fame in the mirror of futurity,
Weaving the chaplets you have yet to gain,
Ah then I feel I have not lived in vain.

The Eurasian community of those days was often misled into looking upon India as a foreign land—not so Derozio.

To India—My Native Land.

My country! in thy day of glory past
A beauteous halo circled round thy brow,
And worshipped as a deity thou wast.
Where is that glory, where that reverence now?
Thy eagle pinion is chained down at last,
And grovelling in the lowly dust art thou:
Thy minstrel hath no wreath to weave for thee
Save the sad story of thy misery!
Well—let me dive into the depths of time,
And bring from out the ages that have rolled
A few small fragments of those wrecks sublime,
Which human eye may never more behold;
And let the guerdon of my labour be
My fallen country! one kind wish from thee!

The boldness with which the Hindu College boys attacked the religious and social institutions of their country was thus set forth by the same Hara Mohan Chatterjee whom we have just quoted:

"The principles and practices of Hindu religion were openly ridiculed and condemned, and angry disputes were held on moral subjects. The sentiments of Hume had been widely diffused and warmly patronized. The most glowing harangues were delivered at debating clubs, which were then numerous. The Hindu religion was denounced as vile and corrupt, and unworthy of the regard of rational beings. The degraded state of

the Hindus formed the topic of many debates ; their ignorance and superstitions were declared to be the causes of such a state, and it was then resolved that nothing but a liberal education could enfranchise the minds of the people. The degradation of the female mind was viewed with indignation. The resolution, at a very large meeting, was carried unanimously that Hindu women should be taught ; and we are assured of the fact that the wife of one of the leaders of the movement was a most accomplished lady, who included, amongst the subjects with which she was acquainted, moral philosophy and mathematics."

XI—David Hare and the Hindu College.

"This history of the Hindu College embodies the history of modern Bengali culture in the second and third quarters of the nineteenth century ; but it is somewhat extraordinary that of the names of all the persons who were instrumental in establishing the institution, the name of a foreigner should occupy a prominent place. But perhaps no foreigner in Bengal has ever pursued so remarkable a career as David Hare. Himself a man of limited education, he is gratefully remembered to-day as one of the founders of English education in Bengal. Never directly connected with teaching, nor openly assuming the role of a reformer, he was yet an educator and reformer in the best sense of the terms. Hare affords the remarkable, and perhaps the solitary, instance in Bengal of an individual who without any refinement of education, without high intellectual endowments, without place or power or wealth, acquired and retained a most important and influential position in the history of modern culture in Bengal, simply by a constant and sincere endeavour of unostentatious service.

The other name which is especially associated with that of David Hare in the foundation of the Hindu College is that of Raja Ram Mohun Roy. Ram Mohun incarnates the impulse which led thinking Indians to devise and work for English education, without an exaggerated faith, however, in the foreign and in the external, and without any desire, again, of aggressive antagonism against orthodox conventions irres-

pective of their merits. In his role as the enlightener of the people, he, more than any other Indian of that day, advocated the necessity of a new departure in education ; a new departure in which the literature and sciences of the West should bring new inspiration and lift the minds of his countrymen from the rigidity of dead habits and traditional forms. In David Hare, on the other hand, the scheme found an eager, active and valuable supporter who had already endeared himself to the people of the land by his large-hearted benevolence and interest in education, and whose energy and practical common sense carried the scheme into maturity and fruition. Hare was neither a Government official nor a Christian missionary but he represents the whole-hearted sympathy which Englishmen of those days felt for their land of adoption. He helped not only in the establishment of the Hindu College but, year after year, he superintended patiently the growth of the institution. Contemporary records are full of references to his quaint figure, dressed in a long blue coat adorned with large brass buttons, moving through the class room or attending the debates of the Academic Association, to his old-fashioned palanquin which was a veritable moving dispensary, as well as to his amiable countenance always beaming at the hovel of the charity boy or at the bed-side of the fever-stricken student. It is in the fitness of things that David Hare's mortal remains, which were denied the rites of Christian burial by an impatient orthodoxy, should lie to this day buried under the monument, erected by a people's love to his memory, on the south side of the tank in College Square and within sight of the College Street and Hare School.

The facts of David Hare's life are very few and can be told very briefly. Son of a watchmaker in London, who had married an Aberdeen lady, Hare came out to Calcutta in 1800 at the age of twenty-five as a watchmaker ; and, after following that profession for several years he made over his concern (before 1816) to his friend, one Mr. Grey, under whose roof he led his bachelor life till his death on June 1, 1842 at the age of sixty-seven. Instead of returning to his native country,

like the rest of his countrymen, with the competence he had acquired, he adopted for his own the country of his sojourn, and cheerfully devoted the remainder of his life to the one object dear to himself, namely, the spread of Western education, for which he spared neither personal trouble, nor money, nor influence".—*The Hindu College and the Reforming Young Bengal* by S. K. De in *Acharyya Rây 70th Birthday Commemoration Volume.*

XII—Scottish Church and Alexander Duff.

The year 1830 was remarkable for an event which, though unnoticed in the official records of the year, had a powerful influence on the character and progress of education in India. About the year 1824, the Church of Scotland, aroused from the repose that followed the subsidence of foreign persecution and domestic contention, began to emulate the efforts made by missionary societies in England, and to turn their attention to the wide field offered to them in the East. Dr. John Bryce and Dr. Inglis were the mainspring of the movement of which it was characteristic and consistent that education should form a prominent feature. Education had done much for Scotland, and on education the Church hoped to find a sound basis for missionary effort in India. The success of the measure depended on the man deputed to initiate it, and the man deputed was Dr. Duff. He landed at Calcutta in May, 1830, and in spite of precedent, tradition and authority, and difficulties that would have disconcerted a less ready, earnest and resolute mind, he succeeded in the following August in establishing a seminary in which literary, scientific, and religious education was the declared object, and English the channel of instruction. The seminary was a success from the first, and soon counted an average attendance of eight hundred pupils, notwithstanding the open denunciation of the conservative Hindu party, and the ill-concealed opposition of those who anticipated failure from religious teaching in any shape, and from the comparative neglect of Sanskrit and Arabic, the learned languages of the country. The seminary is now called the Free Church Institu-

tion,—a standing monument of the debt which the cause of enlightenment owes to Dr. Duff and his associates. There are now in Calcutta four large Missionary Institutions—the Free Church, the General Assembly's Institution, the Cathedral Mission College, and the London Missionary Society's Institution.[9]

XIII—CONTROVERSY BETWEEN ANGLICISTS AND ORIENTALISTS.

The Charter of 1813 only provided a grant of £10,000 for the spread of education. But insignificant as the sum was, it has an historic importance, for over it was fought a battle, the issues of which have been far-reaching, namely, the controversy between the Anglicists and Orientalists.

Lord Hastings retired in 1823, and his temporary successor, Mr. Adam, distinguished himself by at last initiating a body to carry out the policy intended by the framers of the educational clause in the Charter of 1813. Influenced by Mr. Holt Mackenzie, the author of the first Note on Education, Mr. Adam appointed a General Committee of Public Instruction for the purpose of ascertaining the state of education in the Bengal Presidency and of "the public institutions designed for its promotion, and of considering, and from time to time submitting to Government, the suggestion of such measures as it may appear expedient to adopt, with a view to the better instruction of the people, to the introduction among them of useful knowledge including the sciences and arts of Europe, and to the improvement of their moral character."

From its earliest constitution this Committee was guided by two great principles, which became traditional, and had the most important effect upon the progress of education. The first was an endeavour to win the confidence of the educated and influential classes, by encouraging the learning and literature

[9] Howell wrote the above in 1871. The Free Church Institution and the General Assembly's Institution were amalgamated in 1908 into the present Scottish Churches College. The Cathedral Mission College and the London Missionary Society's Institutions have ceased to exist. But the St. Xavier's College and the Church Missionary Society's College are rendering equally valuable services.

which they respected, and by strictly avoiding any suspicion of proselytism. The second principle was that, as the funds at the disposal of the Committee were quite inadequate for any purpose of general education, the best application of them would be to high education, which was of course out of the reach of the masses and only attainable by the few. From the former principle sprung the controversy between the Anglicists and Orientalists, that grew in intensity during the first twelve years of the Committee's existence (1823-35) and was only finally settled in 1835.

The controversy between the Anglicists and Orientalists was simply whether the English language and European learning, or the Sanskrit, Arabic, and Persian languages and Asiatic learning, should be the subject matter of higher education in India. Both parties admitted that the ultimate medium of instruction for the natives should be their vernacular languages; but as the vernacular literature was extremely barren, the question was what was to be the classical language and from what source were the vernaculars to be enriched.

From the constitution of the Committee it was natural that it should have been influenced from the first by a strong prejudice in favour of oriental literature. Most of its members and especially the seniors were civilians, who had distinguished themselves in the College of Fort William then in the height of its reputation; most of them were leading members of the Asiatic Society, of which the professed object was the investigation of the history and antiquities of the East, and which had disseminated in the Calcutta community a spirit of orientalism comparable only with the preference for Latin and Greek among the learned of the middle ages in Europe.[10] To a Committee so composed it may be well imagined that the following despatch attributed to James Mill was anything but acceptable.[11]

[10] The prominent orientalists were H. Shakespear, Henry T. Prinsep and H. H. Wilson.

[11] James Mill and his son (John Stuart) held important posts under the East India Company. The Roman hand of both is discernible in many of the despatches of the Court of Directors.

"The ends proposed in the institution of the Hindoo College (at Benares), and the same may be affirmed of the Mahomedan, were two,—the first, to make a favourable impression, by our encouragement of their literature, upon the minds of the natives ; and the second, to promote useful learning. You acknowledge that if the plan has had any effect on the former kind, it has had none on the latter ; and you add that it must be feared that the discredit attaching to such a failure has gone far to destroy the influence which the liberality of the endowment would otherwise have had.

"We have from time to time been assured that these colleges, though they had not till then been useful, were, in consequence of proposed arrangements, just about to become so ; and we have received from you a similar prediction on the present occasion.

"We are by no means sanguine in our expectation that the slight reforms which you have proposed to introduce will be followed by much improvement and we agree with you in certain doubts, whether a greater degree of activity, even if it were produced on the part of the masters, would, in present circumstances, be attended with the most desirable results.

"With respect to the sciences, it is worse than a waste of time to employ persons either to teach or to learn them in the state in which they are found in the oriental books. As far as any historical documents may be found in the oriental languages, what is desirable is that they should be translated, and this, it is evident, will best be accomplished by Europeans who have acquired the requisite knowledge. Beyond these branches what remains in oriental literature is poetry ; but it has never been thought necessary to establish colleges for the cultivation of poetry, nor is it certain that this would be the most effectual expedient for the attainment of the end.

"In the meantime we wish you to be fully apprised of our zeal for the progress and improvement of education among the natives of India, and of our willingness to make considerable sacrifices to that important end, if proper means for the attainment of it could be pointed out to us. But we appre-

hend that the plan of the institutions, to the improvement of which our attention is now directed, was originally and fundamentally erroneous. The great end should not have been to teach Hindoo learning, but useful learning. No doubt in teaching useful learning to the Hindoos, or Mahomedans, Hindoo media or Mahomedan media, so far as they were found the most effectual, would have been proper to be employed, and Hindoo and Mahomedan prejudices would have needed to be consulted, while everything which was useful in Hindoo or Mahomedan literature it would have been proper to retain; nor would there have been any insuperable difficulty in introducing, under these reservations, a system of instruction from which great advantage might have been derived. In professing, on the other hand, to establish seminaries for the purpose of teaching mere Hindoo or mere Mahomedan literature, you bound yourselves to teach a great deal of what was frivolous, not a little of what was purely mischievous, and a small remainder indeed in which utility was in any way concerned.

"In the new college which is to be instituted, and which we think you have acted judiciously in placing at Calcutta instead of Nuddea and Tirhoot as originally sanctioned, it will be much farther in your power, because not fettered by any preceding practice, to consult the principle of utility in the course of study which you may prescribe. Trusting that the proper degree of attention will be given to this important object we desire that an account of the plan which you approve may be transmitted to us, and that an opportunity of communicating to you our sentiments upon it may be given to us before any attempt to carry it into execution is made."

XIV—Committee's Reply to the Strictures.

To this the Committee returned an elaborate reply, especially directed against the remark that the plans of the Hindu College at Benares and Muhammadan College at Calcutta were 'originally and fundamentally erroneous,' and that in establishing seminaries for the purpose of teaching mere

Hindu or Muhammadan literature the Government 'bound themselves to teach a great deal of what was frivolous, not a little of what was purely mischievous, and a small remainder indeed in which utility was in any way concerned.'

"Under the present circumstances, therefore, on account of the still vigorous prejudices of both Mahomedans and Hindoos, and the want of available instruments for any beneficial purpose of greater extent, we conceive that it is undoubtedly necessary to make it the business of Government institutions intended for those classes respectively to teach (we hope) not long exclusively, Mahomedan and Hindoo literature and science."

The letter concluded with a learned defence of the value of Sanskrit and Arabic writings on metaphysics, mathematics, law, history, and poetry, and a respectful protest in favour of the course which the Committee had heretofore pursued. Admitting all that the Committee had urged on behalf of orientalism, there was obviously a reverse of the picture quite irrespective of the superior value of European learning. This is well shewn in an account given by Bishop Heber of a visit to the Benares Sanskrit College in 1824. The Bishop was present at a lecture on astronomy. The lecturer produced a terrestrial globe and identified Mount Hiru with the north pole, while under the southern pole he declared that the tortoise rested and supported the earth. He shewed to the young students how the Southern Hemisphere was uninhabitable ; how Padalon was placed in the interior of the globe, how the sun went round the earth once in every day, and how by an equally continuous motion he visited the signs of the Zodiac. Bishop Heber concludes his account by an expression of wonder that such "rubbish" should be taught in a Government College.[12]

[12] That the modern ideas of science could not be grafted on the old stock is also evident from the following account.

"Mr. Wilkinson's great efforts and success were in the Sanscrit branch of the higher class, in which the Hindoo mathematics and the Hindoo system of astronomy are adopted as the foundation of the course of study." From the Sidhants, which are wholly free from the fables of the Poorans, and which carry the students just to that point

Even among the natives the same feeling had arisen. The views of the more advanced members of the Hindu community were very ably represented in a letter from Ram Mohun Roy, addressed in December, 1823, to Lord Amherst, on the occasion of the proposed establishment of the Sanskrit College at Calcutta. "It took twelve years of controversy, the advocacy of Macaulay, and the decisive action of a new Governor- General, before the Committee could, as a body, acquiesce in the policy urged by Ram Mohun Roy."—Howell.

XV—Lord Amherst on the Horns of a Dilemma.

This view is generally held even at the present day. A close study of the literature on the subject compels me to revise

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to which the Science of Astronomy had been carried in Europe when Copernicus, Newton and Galileo, appeared to point out and to establish that the sun and not the earth was the centre of our system, he unfolded and explained to the pupils all the principal facts of astronomy proving and illustrating the further truths of the science upon the basis afforded by those works.

Mr. Wilkinson candidly states that the first effect at least of his use of the Sidhants to expose the absurd ideas usually prevalent among Hindoos from the authority of the Poorans, was to rouse a very keen and general opposition among the Bramins in many parts of India. These are his words on the subject. "But as the class advanced, their new opinions and more especially the talented summary of them by Soobajee Bapoo[13] in his Sheromuni Prukash, which has been widely circulated, have not failed to attract the attention and bring down upon them the condemnation of the most learned Shastrees and orthodox Pundits of Oojain, Poona, Benares, Muthoora, Nagpore, and Sutara. The Oojain Pundits contended for the unadulterated Poorans, denying that the earth was a sphere and asserting that Bapoo's book was full of heterodoxy; the Muthoora Pundits, candidly, and with a keener foresight of the consequence of their study, pronounced the Sidhants and the whole Jyotish Shastrus (though acknowledged by all the Shastrus to be a Vedangu or offshoot of the sacred Vedas) to be an infidel science. The Nagpore Pundits displayed an utter ignorance of the Sidhants. The Poona and Benares Pundits admitted the truth of both the Pooranic and Siddhantic system, and maintained that their contradictions were only apparent and might be reconciled."

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[13] Bapoo Deva Sastri, who later on revised Wilkinson's translation of Bhaskara's Siddhanta Siromani.

my judgment on poor Lord Amherst ; he was at his wit's end. On the one hand, the "orientalists" had enlisted on their side the sympathy and advocacy of the orthodox Hindus who looked upon Sanskrit as *Devabhasa* (or divine language) *i.e.*, emanating from the Gods, who threatened dire consequences if its cultivation were neglected in favour of a foreign tongue. On the other hand, a few enlightened Hindus, with Ram Mohun Roy as their spokesman, demanded the introduction of Western literature and sciences. The Governor-General in Council took care to observe :

"The Committee will bear in mind that the immediate object of the institution is the cultivation of Hindu literature. Yet it is in the judgment of His Lordship in Council a purpose of much deeper interest to seek every practicable means of effecting the gradual diffusion of European knowledge. It seems indeed no unreasonable anticipation to hope that if the higher and the educated classes among the Hindus shall, through the medium of their sacred language, be imbued with a taste for European literature and science, general acquaintance with these and with the language whence they are drawn, will be as surely and as extensively communicated as by any attempt at direct instruction by other and humbler seminaries."

The following paragraph from the despatch of the Court of Directors is also worthy of record :—

"In conclusion, it is proper for us to remark to you that, adverting to the daily increasing demand for the employment of Natives in the business of the country, and in important departments of the Government, the first object of improved education should be to prepare a body of individuals for discharging public duties. It may, we trust, be expected that the intended course of education will not only produce a higher degree of intellectual fitness, but that it will contribute to raise the moral character of those who partake of its advantages, and supply you with servants to whose probity you may, with increased confidence, commit offices of trust. To this, the last and highest object of education, we expect that a large share of your attention will be applied. We desire that the discipline

of these institutions may be mainly directed towards raising among the students that rational self-esteem which is the best security against degrading vices; and we particularly direct that the greatest pains may be taken to create habits of veracity and fidelity by inspiring the youths with a due sense of their importance and by distinguishing with the approbation of Government or its discountenance, those who do or do not possess these qualifications."

The despatch of the Court of Directors (1830) also encouraged a thorough knowledge of English among a limited number of Indian youths, so that gradually by the downward process of filtration European ideas and sentiments may permeate among the masses.

On the 29th September, 1830, the Court again addressed a remarkable despatch to the India Government, conceived in the spirit of the orders of 1824, and re-urging the importance of encouraging a thorough knowledge of English, in the conviction that the higher tone and better spirit of European literature can produce their full effect only on those who become familiar with them in original languages. While, too, it was admitted that the higher branches of science might be more advantageously studied in the languages of Europe than in translations into the oriental tongues, it was declared that the fittest persons for translating English scientific books, or for putting their substance into a shape adapted to Asiatic students, were the natives, who had studied profoundly in the original works. But English was not to be exclusively pursued.

XVI—Spread of Useful Knowledge Through the Medium of Vernacular Always Kept in View.

The Court strongly warned the Committee against a disposition to underrate the importance of what might be done to spread useful knowledge among the natives through the medium of books and oral instruction in their own languages. It was pointed out that the more complete education, which is to commence by a thorough study of the English language,

could be placed within the reach of a very small proportion of the natives of India ; but that intelligent natives, who had been thus educated, might, as teachers in colleges and schools, or as the writers or translators of useful books, contribute in an eminent degree to the more general extension among their countrymen of a portion of the acquirements which they had themselves gained, and might "communicate in some degree to the Native literature, and to the minds of the Native community, that improved spirit which it is to be hoped they will themselves have imbibed from the influence of European ideas and sentiments." The Government was urged to make it generally known that every qualified native, who would zealously devote himself to such a task, would be held in high honour ; that every assistance and encouragement, pecuniary or otherwise, which the case might require, would be liberally afforded ; and that no service which it was in the power of a native to render to the British Government would be more highly acceptable.

The despatch concluded with an assurance especially gratifying to the native community and deserving of special record.

XVII—Familiarity with European Literature and Science as a Qualification for Employment in the Civil Administration.

"In the meantime we wish you to be fully assured, not only of our anxiety that the judicial offices to which Natives are at present eligible should be properly filled, but of our earnest wish and hope to see them qualified for situation of higher importance and trust. There is no point of view in which we look with greater interest at the exertions you are now making for the instruction of the Natives, than as being calculated to raise up a class of persons qualified by their intelligence and morality for high employments in the civil administration of India. As the means of bringing about this most desirable object, we rely chiefly on their becoming, through a familiarity with European literature and science, imbued with the ideas and feelings of civilised Europe, on the general

cultivation of their understandings, and specially on their instruction in the principles of morals and general jurisprudence. We wish you to consider this as our deliberate view of the scope and end to which all your endeavours with respect to the education of the Natives should refer. And the active spirit of benevolence, guided by judgment, which has hitherto characterised your exertions, assures us of your ready and zealous co-operation towards an end which we have so deeply at heart."

XVIII—The Orientalists—Their Last Rally—Closing of the Controversy.

Under these circumstances, a difference of opinion arose in the Committee. One section of it was for following out the existing system—for continuing the Arabic translations, the profuse patronage of Arabic and Sanskrit words, and the printing operation, by all which means fresh masses would have been added to an already unsaleable and useless hoard. The other section of the Committee wished to dispense with this cumbrous and expensive machinery for teaching English science through the medium of the Arabic language ; to give no bounties in the shape of stipends for the encouragement of any particular kind of learning, to purchase or print only such Arabic and Sanskrit books as might actually be required for the use of the different Colleges ; and to employ that portion of their annual income which would, by these means, be set free, in the establishment of new seminaries for giving instruction in English and the Vernacular languages, at the places where such institutions were most in demand.

This fundamental difference of opinion long obstructed the business of the Committee. Almost everything which came before them was more or less involved in it. The two parties were so equally balanced as to be unable to make a forward movement in any direction. A particular point might occasionally be decided by an accidental majority of one or two, but as the decision was likely to be reversed the next time the subject came under consideration, this only added inconsistency to inefficiency. This state of things lasted for about three years,

until both the parties became convinced that the usefulness and respectability of their body would be utterly compromised by its longer continuance. The Committee had come to a dead stop, and the Government alone could set it in motion again by giving a preponderance to one or the other of the two opposite sections. The members, therefore, took the only course which remained open to them, and laid before the Government a statement of their existing position, and of the grounds of the conflicting opinions held by them.

The question was fairly brought to issue, and the Government was forced to make its selection between two opposite principles.—Howell.

XIX—Macaulay's Famous Minute of 1835.

This stage of the controversy has a peculiar interest, not only as a turning point in the history of education in India, but because of the part taken in it by Macaulay then on the Committee, and at the same time Legislative Member of the Supreme Council. In the latter capacity Macaulay wrote a long minute replying fully to the arguments, political and educational, advanced by the Orientalists. He declared that the Government was not bound by the Act of 1813 to any particular kind of teaching, or fettered by any pledge expressed or implied, but was at liberty to employ its funds as it thought best, and that the best way of employing them was in teaching what was best worth knowing. English was better worth knowing than Sanskrit and Arabic. The natives themselves have found this out. They would pay to learn English but they required to be paid to be taught Sanskrit and Arabic and then thought themselves entitled to compensation from Government for having been engaged so long in so useless an acquisition. It was quite possible and very advantageous on every ground to make natives of India thoroughly good English scholars, and to this end the efforts of the Committee should be directed.

The minute, distinguished by the brilliancy of style, the profuse illustration and incisive logic peculiar to the author, concluded with a distinct declaration that if the present system were permitted to remain unchanged, the writer would resign his seat on the Committee. The Governor-General, Lord William Bentinck, briefly endorsed his entire concurrence in Mr. Macaulay's views.

"His Lordship in Council is of opinion that the great object of the British Government ought to be the promotion of European literature and science among the Natives of India; and that all the funds appropriated for the purposes of education would be best employed on English education alone."

On the receipt of this order the Committee resolved that henceforth "schools for the teaching of English literature and science through the medium of the English language should be established in the principal towns in the Presidencies of Fort William and Agra, as funds become available and as school masters can be procured."

Thus the new policy was accepted, and still remains practically unchanged, having received authoritative confirmation in the despatch of 1854. The closing of the controversy was signalised by the accession to the Committee of the first two Indian members, Radhakanta Deva and Rasamaya Datta, who in common with the more advanced of the native community, entirely approved of the Resolution. But the order naturally excited the greatest dissatisfaction among the advocates of the opposite views. The President of the Committee, Mr. Shakespear, and two of the leading members, at once tendered their resignations. The Literary Society of Calcutta, almost entirely composed of Orientalists, loudly and unanimously condemned the order. The Asiatic Society took up the quarrel and resolved to strongly memorialise the Court of Directors against the "destructive, unjust, unpopular, and impolitic Resolution, not far outdone by the destruction of the Alexandrine Library itself."—*Proc. Asiatic Soc.*, 1835.

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XX—Macaulay not Originator of English Education.

Howell and Duff have been quoted above to prove that "English education was in a manner forced upon the British Government: it did not spontaneously originate it." It is rather curious to note that even those English authors who have written from a philosophic stand-point on India have fallen into the error of supposing that Macaulay was responsible for originating English education.

"When we decided, mainly under influence of Macaulay, to impart to the people of India a modern and largely Western education, we settled for good or ill the character, and to some extent the pace, of their social and political development. Macaulay prepared our minds for this 'proudest day in English history,' and it has come."—Dilke: *Problems of Greater Britain*, Vol. II, p. 100.

"Could Macaulay really fancy it possible to teach two hundred and fifty millions of Asiatics English? Probably not, probably he thought only of creating a small learned class. * * * But if India is really to be enlightened, evidently it must be through the medium neither of Sanscrit nor of English, but of the Vernaculars, that is Hindustani, Hindi, Bengali &c."—Seeley: *Expansion of England*, p. 253.

An English educationist disposes of the above erroneous notion curtly:

"Macaulay by his eloquence and wealth of superlatives has often been made solely responsible for cutting off Indian education from the roots of national life. Let it be remembered here that he was not the prime mover, that his intervention was late and that the forces which he represented would probably have been successful without his singularly tactless and blundering championship. The movement towards Anglicisation originated in Missionary and Hindu quarters before Macaulay had begun to sharpen his pen and select his epithets in the land of 'exile' whose culture he was to traduce. And it was fostered by Hindu support for many years after he had left India. Far more important than that 'master of superlatives'

was Ram Mohun Roy, whose antecedents, career, and aspirations won for him friends among reformers and missionaries alike, and enabled him to unite these bodies against the common enemy."—Arthur Mayhew: *The Education of India*, pp. 12-13.

Macaulay and Duff advocated English as a medium to the select youths of India only during the *transitional period*. The following extracts from Duff's writings will make it abundantly clear.

Writing of this period [1834-35] Duff declared: "I saw clearly and expressed myself strongly to the effect that ultimately, in a generation or two, the Bengalee, by improvement, might become the fitting medium of European knowledge. But at that time it was but a poor language, like English before Chaucer, and had in it, neither by translation nor original composition, no works embodying any subjects of study beyond the merest elements.

"Who, then, will hesitate in affirming that, in the meantime, the Government has acted wisely in appointing the English language as the medium of communicating English literature and science to the select youth of India? And who will venture to say that the wisdom of the act would be diminished if it guaranteed the continuance of English as the medium *until the living spoken dialects of India became ripened, by the copious infusion of expressive terms, for the formation of a new and improved national literature*?"—George Smith: *The Life of Alexander Duff*.

XXI—Conclusion.

"Before we conclude this chapter, we must not, however, forget to render unto Caesar the things that are Caesar's. We yield to none in our admiration for Macaulay, whom we may almost style the father of high education in India. But when Macaulay had not even been elected a fellow of Trinity College,[14] Ram Mohun Roy had sent a pathetic appeal to the representative of the British nation, which extorted the admiration and drew forth the encomium of Bishop Heber[15]; and there are passages in it which are almost interchangeable with those

which occur in Macaulay's minute. Engaged in the tedious and protracted Burmese War, Lord Amherst could not afford to trouble himself much about the intellectual progress of the Indian people. Ram Mohun Roy's voice was thus as that of one crying in the wilderness. Not even an official intimation was vouchsafed to him that attention should be given to his memorial.[16] It is perhaps a sign of human weakness that we are apt to give more credit to one who, no less by disinterested zeal than by a fortuitous concourse of events, brings a movement to a successful issue, than to one who, amidst comparative darkness, takes the initiative. We do not know which of the two to admire most—the Indian or the Englishman —Ram Mohun Roy or Macaulay."—*India* (1886).

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[14] Trinity College, Cambridge, Oct. 1, 1824—My dear father: I was elected Fellow this morning.—Trevelyan's *Life and Letters of Lord Macaulay*, Vol. 1, p. 107.

[15] "Rammohun Roy, a learned Native . . . remonstrated against the system (Brahminical education) last year in a paper which he sent me to be put into Lord Amherst's hands, and which for its good English, good sense, and forcible arguments, is a real curiosity as coming from an Asiatic."—Heber's *Journal*.

Cf.—"In order to enable Your Lordship to appreciate the utility of encouraging such imaginary learning as above characterised (*e.g.* the Vedanth, etc.) I beg Your Lordship will be pleased to compare the state of science and literature in Europe before the time of Lord Bacon with the progress of knowledge since he wrote."—Ram Mohun Roy.

[16] It is scarcely fair to hold that Ram Mohun's letter received but scant justice at the hands of Lord Amherst; in fact, he forwarded it to the Education Committee for their opinion. A copy of it was also evidently sent to the Court of Directors. Howell very properly suggests that James Mill himself was influenced by it as is proved by internal evidence and by reference to dates.

CHAPTER II.

Mass Education and Creation of Vernacular Literature.

There is no doubt that from time immemorial indigenous schools have existed in the country. In Bengal alone, in 1835, Mr. Adam estimated their number to be 100,000.[1] In Madras, upon an enquiry instituted by Sir Thomas Munro in 1822, the number of schools was reported to be 12,498 containing 188,650 scholars, and in Bombay about the same period schools of a similar order were found to be scattered all over the Presidency. But although all authorities were agreed that the existence of these schools was a satisfactory evidence of a general desire for education, there was equal unanimity that the instruction actually imparted in them was, owing partly to the utter incompetence of the teachers, the absence of all school books and appliances, and the early age at which the children were withdrawn, almost worthless. Still it is much to be regretted that, as each Province fell under British rule, the Government did not take advantage of the prestige of conquest or gratitude for delivery from war and oppression which were strong in the popular mind, to make the village school an important feature in the village system that was almost everywhere transmitted to us. Had this been done, and had the numerous village allowances been diverted to this object, and had the Government devoted itself to the improvement of school books and schoolmasters, instead of establishing a few new schools of its

[1] Max Müller, on the strength of official documents and a missionary report concerning education in Bengal prior to the British occupation, asserts that there were then 80,000 native schools in Bengal, or one for every 400 of the population. Ludlow, in his *History of British India*, says that "in every Hindoo village which has retained its old form I am assured that the children generally are able to read, write and cipher, but where we have swept away the village system, as in Bengal, there the village school has also disappeared."—*Prabashi*, Bhadra, 1341, pp. 754-755.

own and thereby encouraging the belief that it was for the State, and not for the community, to look after education, the work of general improvement would have been substituted for the work of partial construction, and we should now have had in every Province a really adequate system of national primary education. Sir Thomas Munro aimed at this in Madras, as did Mountstuart Elphinstone in Bombay, and Lord William Bentinck in Bengal, "but their views were over-ridden by men who, if less far-seeing, were more persistent."

Howell, in the above remarks, I am afraid, does injustice to the "men who, if less far-seeing, were more persistent," as he himself admits that "the instruction imparted in the village schools was almost worthless;" he might have added that it was hopelessly out of date and did more harm than good and to raise the indigenous schools above the traditional level would have been to "improve them off the face of the earth."

The extract from the *Life and Times of Ramtanu Lahiri* by Sivanath Sastri (translated by Sir Roper Lethbridge) quoted below will show the utter futility of making the existing village school an important feature of national mass education.

"Here we find it necessary to say a few words about the constitution and management of *Patshalas*, as they then existed. It usually happened that some of the Kayasthas of the Burdwan District, pinched by poverty, left their homes in quest of bread, and failing to find other employments, established themselves as teachers for the young in different parts of the country. They were called *Gurumahasais* (village pedagogues); and the apologies for our modern vernacular schools, which they started, were called *patshalas.*"

If mass education were to be developed on right lines, the enrichment of the vernacular was an absolute necessity, and the pioneering efforts of the Serampore missionaries in this connection deserve the highest praise.

In 1816 Mr. Marshman, stimulated by the encouragement he had received from Lord Moira, began to entertain wider views on the extension of education, and published a pamphlet, called 'Hints relative to Native Schools,' which is

remarkable for its advocacy of vernacular education for the masses, and of many of the principles afterwards authoritatively enunciated in the great educational despatch of 1854. Mr. Marshman's views were warmly taken up and supported by the public and by the Governor-General, who sent a contribution of rupees 500, and even by the Indians, as represented by Ram Mohun Roy, the great Hindu reformer and founder of the Brahmo Samaj, and Dwarkanath Tagore, then representatives of the most advanced section of native society.

I—Carey's Great Services.

The appointment of Carey to the Professorship of Bengali and Sanskrit in the College of Fort William was of special significance, as to his efforts in this noble institution, we owe the dawn of Bengali prose. It is gratifying to note that Dr. S. K. De in his *Bengali Literature in the Nineteenth Century* has done ample justice to the claims of Carey in this field as will be clear from the following extracts:

"He found the appointment bringing in its train responsible duties but it afforded him an early opportunity not only to cultivate 'the beautiful language of Bengal' but also to enrich its literature by his own labours as well as by the labours of others whom he induced to work in the same field. He himself not only wrote a grammar, compiled a dictionary and composed text-books but he was at the same time the centre of the learned Bengalis, whom by his zeal he attracted round him as *pundits* and *munsis*, as inquirers and visitors. The impetus which he gave to Bengali learning is to be measured not merely by his productions or by his educational labours at this institution or at Sreerampur but also by the influence he had exerted and the example he had set before an admiring public who soon took up his work in earnestness. He had gathered round him a number of scholars who were at first his teachers but whom he had succeeded in employing in extensive literary work. Of the fifteen *munsis* who taught Bengali in the College, the Chief was his own *pundit*, Mrityunjay, who wrote some of the most learned and elaborate treatises of the time. He induced three other *pundits* of the College, Ram Basu, Rajiblochan and Chandicharan, to undertake the composition of vernacular works and he always befriended those who took any interest in the vernacular literature. * * * Thus, although the College of Fort William was founded to fulfil a political mission, its usefulness and its importance never ended there. The

impetus which it gave, as a centre of learning and culture, to the cause of vernacular language and literature, gives it a prominent place in the literary history of the time. No doubt its greatest achievement in the history of intellectual progress in this country consists in its revival of the ancient culture of the land, its all-comprehensive orientalism daring far beyond the intrepid dreams of scholars like Sir William Jones, Wilkins, and Colebrooke. But this orientalism embraced a great deal more than a mere revival of classical learning. Attention hitherto had never been turned to vernacular learning in this country which was in a sadly neglected state at the beginning of the century. The College of Fort William, by its encouragement of the vernacular, first brought it into public notice and fostered and nourished it."

II—The Calcutta School Book Society—The Calcutta School Society.

"In 1817 the Calcutta School Book Society was established ; it was intended to supply, under prime cost, useful elementary books for the schools then springing up on all sides. In 1821 this society received an annual grant of Rs. 6,000/-, which it still (1871) enjoys." The same year is remarkable for Lord Hastings' (Governor-General, 1813-23) public declaration at the annual convocation of the College of Fort William, that the strength of the Indian Government would not be based on the ignorance but on the enlightenment of the people, and that it would be treason against British sentiment to imagine any other principle of government. The declaration has been often repeated, but its first enunciation, as contrasting strongly with the Parliamentary decision of 1793, may be justly recorded.

The year 1819 was marked by the establishment of the Calcutta School Society. This Society was formed for the purpose of establishing Native schools, first in Calcutta and its vicinity, and then throughout the country to the utmost extent of its resources. It also contemplated the improvement of the indigenous schools by the introduction into them of the useful publications of the School Book Society, and by the preparation of teachers to whom might be entrusted the future management of the schools of various descriptions which were or might be established. In 1823 the resources of this Society were found to be incommensurate with its object, an application was made

to the Government for pecuniary aid, which was afforded to them upon the same principles, and to the same annual amount, as had been granted to the School Book Society.[2]

"This grant was sanctioned by the Court of Directors in a despatch which deserves to be recorded as the first recognition on the part of the Home Government of the claims of education for the masses and of the best means of attempting it."—Howell.

"We recently sanctioned a grant of similar amount to the Calcutta School Book Society, and on the same grounds we have no hesitation in sanctioning the present grant. The Calcutta School Society appears to combine with its arrangements for giving elementary instruction, an arrangement of still greater importance for educating teachers for the indigenous schools. This last object we may deem worthy of great encouragement, since it is upon the character of the indigenous schools that the education of the great mass of the population must ultimately depend. By training up, therefore, a class of teachers, you provide for the eventual extension of improved education to a portion of the Natives of India, far exceeding that which any elementary instruction that could be immediately bestowed would have any chance of reaching."

III—The Calcutta Committee and Vernacular Literature.

It has already been mentioned that in 1835, the Anglicists triumphed with the help of Macaulay, and His Lordship in Council (Bentinck) expressed the opinion that the object of the British Government ought to be the promotion of European literature and science among the natives of India and all funds appropriated for the purpose of education would be best employed on English education alone.

Upon one point, however, there can be no question that, whatever was the intention of the Government, this Resolution went somewhat beyond it, in that it barred any expenditure on vernacular teaching, notwithstanding that both parties admitted

[2] The School Book Society was abolished a few years ago as it had long outlived its purpose.

the necessity of encouraging the vernaculars, and only disputed about the subject matter and medium of higher education. Indeed, in Madras, the immediate result was the prohibition of the use of the vernacular languages as media of instruction in any Government schools, and the employment of Government funds on English education exclusively. The Calcutta Committee were, however, necessarily better informed of the real object of the Resolution, and in acknowledging it in the report for the year "as an epoch in the history of our Committee in which a well-defined principle of action has for the first time been prescribed to us," they remarked as follows:

"We are deeply sensible of the importance of encouraging the cultivation of the vernacular languages. We do not conceive that the order of the 7th of March precludes us from doing this, and we have constantly acted on this construction. In the discussions which preceded that order, the claims of the vernacular languages were broadly and prominently admitted by all parties, and the question submitted for the decision of Government only concerned the relative advantage of teaching English on the one side, and the learned Eastern languages on the other. We, therefore, conceive that the phrases "European literature and science," "English education alone," and "imparting to the Native population a knowledge of English literature and science through the medium of the English language" are intended merely to secure the preference to European learning taught through the medium of the English language, over Oriental learning taught through the medium of the Sanskrit and Arabic languages, as regards the instruction of those Natives who receive a learned education at our seminaries. These expressions have, as we understand them, no reference to the question through what ulterior medium such instruction, as the mass of the people is capable of receiving, is to be conveyed. If English had been rejected and the learned Eastern tongues adopted, the people must equally have received their knowledge through the vernacular dialects. It was, therefore, quite unnecessary for the Government, in deciding the question between the rival languages, to take any notice of the vernacular tongues, and consequently we have thought that nothing could reasonably be inferred from its omission to take such notice.

"We conceive the formation of a vernacular literature to be the ultimate object to which all our efforts must be directed. At present, the extensive cultivation of some foreign language, which is always very improving to the mind, is rendered indispensable by the almost total absence of a vernacular literature, and the consequent impossibility of

obtaining a tolerable education from that source only. The study of English, to which many circumstances induce the Natives to give the preference, and with it the knowledge of the learning of the West, is therefore, daily spreading. This, as it appears to us, is the first stage in the process by which India is to be enlightened. The natives must learn before they can teach. The best educated among them must be placed in possession of our knowledge, before they can transfer it into their own language. We trust that the number of such translations will now multiply every year. As the superiority of European learning becomes more generally appreciated, the demand for them will no doubt increase, and we shall be able to encourage any good books which may be brought out in the Native languages by adopting them extensively in our seminaries.

"A teacher of the Vernacular language of the Province is already attached to several of our institutions, and we look to this plan soon becoming general. We have also endeavoured to secure the means of judging for ourselves of the degree of attention which is paid to this important branch of instruction, by requiring that the best translations from English into the Vernacular language, and *vice versa*, should be sent to us after each annual examination, and if they seem to deserve it, a pecuniary prize is awarded by us to the authors of them."

IV—The Calcutta Committee and Mass Education.

The great dispute being settled, the Committee now began to turn its attention to other subjects including the question of the wider diffusion of education among the masses of the people. The views of the Committee on this point have been already explained, but in the report for the year, "I (Howell) find it declared that they were desirous to establish, if funds would admit, an elementary school for vernacular instruction in every district in the country, as a measure intimately connected with the improvement of vernacular literature."

"The improvement of the vernacular literature, however, is most intimately connected with the measure of establishing a system of really national education which shall in time embrace every village in the country. Should the series of reports, on which Mr. Adam is now engaged, lead to such a plan being even partially acted upon, the demand for improved school books in the vernacular languages will then be such as to call for our utmost exertions to supply them. We have already received propositions from Delhi, Agra, and Saugor, for establish-

ing village schools, but we considered the agitation of the subject at present premature. Before we can successfully adopt any plan for this purpose, much larger means must be placed at our disposal, and a much larger number of qualified schoolmasters and translators must be raised up. The first of these desiderata does not depend upon us, but the last is every day approaching nearer to attainment. Our existing institutions form the nucleus of a much more general system of education, and they will erelong become capable of being extended to any degree that may be desired by the formation of district schools in connection with them."

Mr. Adam came to the country as a missionary, and the fact that he was deputed by the Government to make enquiries into the state and requirements of popular education requires a few words of explanation.

It had, indeed, now become apparent to the Governor-General, though not to the Committee of Public Instruction, that if the Government were to recognise the duty of attempting a system of national education in a country so densely populated as India, and when all the available funds were limited to a little more than one lakh of rupees annually, it was necessary to utilise to the utmost every kind of indigenous institution so as to make the Government contribution go as far as possible. Hence it was desirable to ascertain what these institutions were ; what instruction was given in them ; how they were maintained, and how they were regarded by the people. This is the duty for which Lord William Bentinck in 1835 selected and deputed Mr. Adam. Mr. Adam spent three years in the enquiry, and submitted three very elaborate reports, the last of which is dated the 28th April, 1838.

V—Adam's Report.

Mr. Adam found that the desire to give education to their male children was deeply seated in the minds even of the humblest classes of Bengal, and that the machinery was as follows :—

"The education of Bengalee children generally commences when they are five or six years old, and terminates in five years, before the mind can be fully awakened to a sense of the advantages of knowledge or the reason sufficiently matured to

acquire it. The teachers depend entirely upon their scholars for subsistence, and being little respected and poorly rewarded, there is no encouragement for persons of character, talent or learning to engage in the occupation. These schools are generally held in the houses of some of the most respectable Native inhabitants or very near them. All the children of the family are educated in the vernacular language of the country, and in order to increase the emoluments of the teachers, they are allowed to introduce, as pupils, as many respectable children as they can procure in the neighbourhood. The scholars are entirely without instruction, both literary and oral, regarding the personal virtues and domestic and social duties. The teacher in virtue of his character, or in the way of advice or reproof, exercises no moral influence on the character of his pupils. For the sake of pay, he performs a menial service in the spirit of a menial. On the other hand, there is no text or school-book used containing any moral truths or liberal knowledge, so that education being limited entirely to accounts, tends rather to narrow the mind and confine its attention to sordid gain, than to improve the heart and enlarge the understanding. This description applies, as far as I at present know, to all indigenous elementary schools throughout Bengal."

"Mr. Adam's picture of the indigenous schools in Bengal would have applied with almost equal truth to those of the rest of India, and affords a satisfactory assurance that whatever may be the shortcomings of our present system, it is very far in advance of that which it superseded. While, therefore, it will be regretted that the native system should have been superseded instead of being improved, it must still be borne in mind, that instead of schools where the instruction was entirely confined to accounts, 'tending to narrow the mind and confine its attention to sordid gain,' instead of colleges (*tols* for imparting Sanskrit learning) where five or six choice pupils out of a hundred thousand would be advanced to the mystery of philosophical asceticism, our schools attempt to give all that is now understood by a sound elementary education and our colleges are tested by university standards that do not fall short of what is required of the students at Oxford or Cambridge. There was one point, indeed, in which the indigenous system excelled that which is succeeding it. The indigenous schools were planted all over the country and were closely interwoven with the habits and customs of the people, and to this our system has not yet attained."

VI—Substitution of Vernacular for Persian.

Another reform of much importance was introduced about this time in connection with education. It has been said that if French had continued to be the State language of England during the thirteenth and fourteenth centuries, the language of Milton and Burke would have remained a rustic dialect without a literature, grammar or orthography ; and this is somewhat analogous to the weight that attached to the study of the vernaculars and to the creation of a vernacular literature in the Bengal Presidency, when Persian was the language of the law courts and of official correspondence.

"His Lordship in Council (Lord Auckland, 1837) strongly feels it to be just and reasonable, that those Judicial and Fiscal Proceedings on which the dearest interests of the Indian people depend, should be conducted in a language which they understand."

This Resolution was followed by Act XXIX passed on the 20th November, 1837, and is still in force. It enabled the Governor-General in Council to dispense with the Persian language in judicial or revenue proceedings, and to delegate the dispensing power to any subordinate authority ; and it was immediately acted upon. All these proceedings received the entire approbation of the Court of Directors in the following year.

VII—Lord Auckland and Mass Education.

Upon the question of education for the masses, Lord Auckland concurred with the principle steadily maintained by the Committee that the efforts of the Government ought to be first directed upon the higher and middle classes. Still elementary education for the mass of the people was not necessarily to be neglected or indefinitely postponed ; but, he added, "the hope of acting immediately and powerfully on the poor peasantry of India is certainly far from being strong with me." Lord Auckland's policy obviously involved additional expenditure, and in December, 1840, an extra lakh-and-a-half

of rupees was added to the annual grant which then amounted to Rs. 4,86,688/- for the year.[3] Of this sum three-and-a-half lakhs were appropriated to the existing colleges and schools and to the other charges of the Department; and it was in contemplation to devote the remaining income to the establishment of a chair of civil engineering, and another of law or natural philosophy in the Hindu College. By these means the Government was enabled to support six colleges containing 2,117 students, 18 English schools with 2,434 students, and vernacular schools in Bengal, Behar, Cuttack, and Assam, including the schools attached to the Hindu College, at all of which 2,007 youths were then receiving instruction in their own language.

The Committee continued to maintain the policy prescribed in the resolution of March, 1835, as modified by the subsequent order of Lord Auckland in 1839, and thus described in the report for 1840—41: "Our object is," they said, "to promote the highest efficiency in the vernacular and oriental languages and literature in every practicable way compatible with the due regard to the superior importance of the cultivation of the English language and literature, and the deeper and more lasting benefits the latter are capable of imparting."

The year 1844 was remarkable for a resolution, designed apparently by Mr. Halliday, and issued by Lord Hardinge three months after his accession to the Governor-Generalship. The object of the order was to throw open the public service to qualified young men from the various educational institutions.

The Resolution gave a great stimulus at the time to the cause of English education, and was received with much satisfaction by the European and Indian community.

[3] The extra grant was sanctioned by the Court of Directors in response to a piteous appeal from which we quote the following lines:—

"In the Bengal Presidency, with its immense territory and a revenue of above 13 millions sterling, the yearly expenditure of the Government on this account is little in excess of £24,000 or 2,40,000 rupees, and I need not say how in a country like India it is to the Government that the population must mainly look for facilities in the acquisition of improved learning."—*Minute by Lord Auckland.*

VIII—PROPOSAL FOR FOUNDING A UNIVERSITY IN CALCUTTA.

The most important event in the following year (1845) was the submission by the Council to Government of a project for a Central University in Calcutta. The ground of the proposal, for which the Council appears to have been mainly indebted to its Secretary, Dr. Mouat, was thus stated :—

"The present advanced state of education in the Bengal Presidency, with the large and annual increasing number of highly-educated pupils, both in public and private institutions, renders it not only expedient and advisable, but a matter of strict justice and necessity, to confer upon them some mark of distinction, by which they may be recognised as persons of liberal education and enlightened minds, capable, from the literary and scientific training they have undergone, of entering at once upon the active duties of life ; of commencing the practical pursuit of the learned professions, including in this description the business of instructing the rising generation ; of holding the higher offices under Government open to Natives after due official qualification ; or of taking the rank in society accorded in Europe to all members and graduates of the Universities.

"The only means of accomplishing this great object is by the establishing of a Central University, armed with the power of granting degrees in arts, sciences, law, medicine and civil engineering, incorporated by a special Act of the Legislative Council of India, and endowed with the privileges enjoyed by all chartered Universities in Great Britain and Ireland.

"After carefully studying the laws and constitutions of the Universities of Oxford and Cambridge, with those of the recently established University of London, the latter alone appears adapted to the wants of the Native community."

It will have been seen from the foregoing narrative, that steadily, and by deliberate conviction, the Government and the educational authorities of Lower Bengal had been working zealously in the interest of higher education ; and that as a crown to the structure, a project for a Central University had

been proposed before there was any foundation of general education among the people.

IX—Failure of the Moslems.

In the report of 1851-52, there is a notice of "the continued failure of all our efforts to impart a high order of English education to the Muhammadan community," and on the 4th August, 1853, the Council laid before the Government their views *in extenso* upon the required reform.

"The great object of Mr. Warren Hastings in founding the Madrassa, was to qualify the Mahommedans of Bengal for the public service, chiefly in the Courts of Justice, and to enable them to compete, on more equal terms with the Hindus, for employment under Government.

"The Council are far from thinking that this is the only or the highest object for which the mental cultivation of the upper orders of Muhammadans in Bengal ought to be encouraged by the Government of the country. But it is certainly an important and legitimate object.

"Looking first at this object, the Council believe that the institution, when it was founded, was well calculated to attain it. But as the institution has undergone no real improvement of importance since its foundation seventy-one years ago it would be strange if it were still equally well calculated to attain that object, when the time that has passed has worked such vast changes in the nature and requirements of the public service, in the constitution and the procedure of the Courts of Law, and in the temper and habits of the people. That which in the last century was perhaps hardly thought desirable has become necessary. That to the accomplishment of which, if the Government had desired it, the prejudices of the people would then have opposed insuperable obstacle, is now acknowledged as a popular want.

"The use of Persian has ceased in the Courts of Law and in all the offices of Government, whilst a good knowledge

of English has become more and more useful to candidates for employment, whether public or private. What is now the most useful education that can be given to fit a young man for respectable employment in the public service, is sound instruction in English, in the vernaculars, and in that knowledge which, with very rare exceptions, may be best acquired from books in the English language.

"The Madrassa is believed to be a very fit, as it certainly is a very convenient place, in which to originate this Anglo-Persian scheme of study. It is a place of learning which the Mahomedans regard as devoted to their exclusive benefit; it is held in great respect and repute throughout Bengal, and it is freely resorted to by Mahomedans from all parts of the Presidency.

"In addition to English and Persian, it should contain the means of instructions in Hindoostanee, and Bengalee, the one being the domestic language of the Mahomedans all over India, and the other being the vernacular language of this Province.

"The Council would cease entirely from attempts to teach the physical sciences in the Arabic language. If these sciences are taught from Arabic books as at present, a great mass of error and absurdity is taught as if it were truth and reason; and, at the best progressive sciences are taught, as if they had made no progress for some two thousand years. Science ought not, the Council hold, to be thus taught by any Government."

X—Conversion of the Hindu College into the Presidency College.

In the letter that proposed the reform of the Madrassa, the Council urged upon the Government "the want at the metropolis of British India of a Government College, such as is provided at many much less important places, where a higher course of English education can be pursued, open to all, whether they happen to be Hindus of certain high castes or not." The Muhammadans had their Madrassa and the Hindus their Sanskrit College for instruction respectively in Muhammadan and Sanskrit literature; and the Hindus of the

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higher castes had also their own College, the Vidyalaya, the foundation of which has been described above. But there was, as yet, in Calcutta no institution that would meet the growing want described by the Council. The proposal of the Council was to obtain the concurrence of the founders and patrons of the Vidyalaya, and then to throw open the college department of it to the general community as the Government College of the metropolis of India. In reply, Lord Dalhousie admitted all the arguments of the Council, but to effect the object in view, suggested a plan which was at once more free from the objection which the founders and patrons of the Vidyalaya would not unnaturally entertain to the abolition of the exclusive character of the Hindu College. The Governor-General's scheme was the establishment at Calcutta of a new general College, called the Presidency College, as distinguished from all merely local and private institutions. A fitting edifice was to be built for it ; no student was to be admitted who had not passed the junior scholarship standard ; but with this restriction the college was to be open to all youths of every caste, class or creed. Thus, while the Sanskrit College would enable the Hindu student to pursue the higher branches of Hindu teaching, the reformed Madrassa would do the same for the Muhammadan student, and both these classes of young men and of every other class, would have offered to them instruction in every branch of general education in the new Presidency College.

The Council of Education warmly accepted Lord Dalhousie's scheme. The Hindu College was merged in the new institution with the full concurrence of the Bengali proprietors, whose memory was to be perpetuated by a number of scholarships.

All these arrangements were approved by the Court of Directors, in a despatch, from which the following extract deserves to be recorded :—

Your letter refers to a scheme for the establishment of a Presidency College at Calcutta, prepared by the Council of Education, adopted by

the late Governor of Bengal, and strongly recommended for our sanction by your Government.

The scheme originated in a proposal by the Council of Education for throwing open the Hindu College to all classes of the community, irrespective of religious difference. Certain objections, however, to that course were pointed out by the Governor in a minute conceived in a comprehensive and liberal spirit, and His Lordship having indicated the mode in which the object might be accomplished, referred the subject for the further consideration of the Council. The difficulties arising from the peculiar circumstances of the Hindu College having been removed by the voluntary act of the Native hereditary and elected Governors of that institution, the Council were enabled to submit a scheme by which the principal portion of the Hindu College establishment was made available for the formation of a general Presidency College, while at the same time all proper consideration was shown for the special claims of the Hindu community.

Before proceeding further, we desire to express our entire approval of your intention to commemorate the connection of the founders of the College with the progress of learning in India by suitable inscriptions either in the Hindu College itself or in the proposed Presidency College, as well as by the allotment of the funds which remain of the original donations to the foundation of scholarships to be held by Hindus at the Presidency College. We would, however, suggest that it would be of a greater benefit to the Hindu community, and as much in accordance with the views of the original donors, were some at least of these scholarships to be open to Hindu competitors educated at other seminaries of Calcutta or its vicinity, and not confined to the students of the Hindu College.

XI—Foundation of the Medical College.

Besides the decision of the controversy between the Anglicists and Orientalists, Lord Bentinck's administration was remarkable for another great educational reform. In 1833 he appointed a Committee to report on the existing state of native medical knowledge. The report resulted in a general order directing that the Native Medical Institution[4] at Calcutta, and the medical classes at the Sanskrit College[5] and at the

[4] Established in 1822 to supply a superior class of native doctors for the civil and military services.

[5] "The students belonging to the medical caste of the Hindus (Vaidya) have the choice, instead of entering the class of logic, to attend

Madrassa, should be abolished, and that a new institution should be established in which medical science was to be taught on European principles through the medium of English.

"We would very respectfully submit to your Lordship in Council our serious opinion that the best mode of fulfilling the great ends under consideration, is for the State to found a Medical College for the education of the natives, in which the various branches of medical science cultivated in Europe should be taught, and as near as possible, on the most approved European system. . . . . A knowledge of the English language we consider as the *sine qua non*, because that language contains within itself the circle of all the sciences."—(Extract from the Report of the Committee of 1833).

This decision, which appeared at the very crisis of the controversy, was of course vehemently assailed, but happily without effect, by the Orientalists. And it had also to encounter more serious obstacles. It was a grave question whether a Hindu class could be formed at all to study European medical science in opposition to all tradition and experience, and whether the study of anatomy, and especially the practice of dissection, would not be insuperably opposed to the strong prejudices of caste. It was also questionable whether a number of youths could be found with a sufficient knowledge of English and sufficient general education to profit by the proposed instruction ; and whether, after all other objections had been removed, the stipends offered by Government would be adequate to attract students of the new science. All these difficulties were overcome by the tact and energy of the Principal,

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the medical lectures of the Sanskrit as well as of the English lecturer on medicine, and they do not study the law. As their object is to follow the profession of their fathers, they cannot but wish to acquaint themselves with the Hindu practice of physic and with the sorts of medicines most easily obtainable and most generally used in this country, on which account the study of Sanskrit medical books becomes indispensable to this class.

"Being acquainted with them only as a Superintendent of their Sanskrit learning, I feel great pleasure in bearing testimony that some of the best Sanskrit scholars of the college belong to the medical class."

Dr. Bramley, ably assisted by Mr. David Hare, whose exertions on behalf of the Hindu College and the cause of education generally have been already recorded.

The College was opened in June, 1835, with Dr. M. J. Bramley as Principal or Superintendent, and Dr. H. H. Goodeve and W. B. O'Shaughnessy as professors.

The second course of lectures in the College commenced in October, 1835, when dissection was first introduced. The following graphic description of this event was given by Mr. J. E. D. Bethune on the occasion of his presenting to the College a portrait of Madhusudan Gupta who made the first attempt to dissect a dead body:

"I have had the scene described to me. It had needed some time, some exercise of the persuasive art, before Madhusudan could bend up his mind to the attempt; but having once taken the resolution, he never flinched or swerved from it.

"At the appointed hour, scalpel in hand, Madhusudan followed Dr. Goodeve into the godown where the body lay ready. The other students deeply interested in what was going forward but strongly agitated with mingled feelings of anxiety and alarm, crowded after them, but durst not enter the building where this fearful deed was to be perpetrated. They clustered round the doors, peeped through the Jhilmils, resolved at least to have ocular proof of its accomplishment. And when Madhusudan's knife held with a strong and steady hand made a deep incision in the breast, the lookers-on drew a long gasping breath like men relieved from the weight of some intolerable suspense."

In the great Ayurvedic work, *Susruta,* dissection of dead bodies of animals is enjoined for the study of anatomy. The following extract from my *History of Hindu Chemistry* (1902) will not be out of place here:

"In ancient India the useful arts and sciences as distinguished from mere handicrafts were cultivated by the higher classes. Unfortunately a knowledge of these perished with the institution of the caste system in its most rigid form. In the Vedic age, the Rishis or the priests did not form an exclusive caste of their own but followed different professions according to their convenience or natural taste, thus fulfilling the idea laid down by Emerson, "Has man not a calling in his character? Each man has his own vocation; the talent is the call." But all this was changed when the Brahmins reasserted their supremacy on the decline

of Buddhism. The caste system was established *de novo* in a more rigid form. The drift of Manu and of later Puranas is in the direction of glorifying the priestly class which set up most arrogant pretensions. According to the *Susruta*, the dissection of dead bodies is indispensable to the students of surgery and this high authority lays particular stress on knowledge gained from experiment and observation and not on mere speculation, but Manu would have none of it. The very touch of a dead body according to Manu is enough to bring contamination to the sacred person of a Brahmin. Thus we find that shortly after the time of Bagvata the handling of a lancet was discouraged and anatomy and surgery fell into disuse and became to all intents and purposes a lost science to the Hindus."

XII—Charter of Indian Education.

On the occasion of the fourth renewal of the Company's Charter (1853), the evidence of a host of Indian celebrities was taken before Select Committees. With regard to the funds that the Government should devote to the purpose, Mr. Halliday considered that no limit could be assigned to them. "I should desire to treat the subject liberally, and to consider it a very important branch of the Government expenditure, and to be ready to lay out upon it at all times as much money as could possibly be afforded." And as to the spread of education being dangerous to the British Government, Mr. Halliday thought that there was no danger whatever.

"On the contrary," he said, "it appears to me that the spread of education must assist the Government. The educated classes, I think, feel themselves, and must feel themselves more bound to us, and as having more in common with us than they have with their uneducated countrymen, apart from the general fact that it is more easy to govern a people who have acquired a knowledge of good and evil as to government, than it is to govern them in utter ignorance; and on the whole, popular knowledge is a safer thing to deal with than popular ignorance."

In the same strain was the entire evidence, and the result of all was the great educational despatch of July, 1854. This Charter of Indian Education, which in the words of Lord Dalhousie, "contained a scheme of education for all India, far

wider and more comprehensive than the local or the Supreme Government could ever have ventured to suggest. It left nothing to be desired, if, indeed, it did not authorise and direct that more should be done than is within our present grasp."

The despatch of 1854 was confirmed by Lord Stanley's despatch of 1859, after the assumption of the Government of India by the Crown, and the two together form the present "Educational Code," the provisions of which have been thus summarised.[6]

"The main object of the former despatch is to divert the efforts of the Government from the education of the higher classes, upon whom they had up to that date been too exclusively directed, and to turn them to the wider diffusion of education among all classes of the people ; and specially to the provision of primary instruction for the masses. Such instruction is to be provided by the direct instrumentality of Government, and a compulsory rate, levied under the direct authority of Government, is pointed out as the best means of obtaining funds for the purpose. The system must be extended upwards by the establishment of Government schools as models, to be superseded gradually by schools supported on the grant-in-aid principle. This principle is to be of perfect religious neutrality, defined in regular rules adapted to the circumstances of each province, and clearly and publicly placed before the Natives of India. Schools whether purely Government institutions or aided, in all of which (excepting Normal Schools) the payment of some fee, however small, is to be the rule, are to be in regular gradation from those which gave the humblest elementary instruction to the highest colleges ; and the best pupils of

[6] Great stress is laid on this point : "We have also perceived with satisfaction that the attention of the Council of Education in Calcutta has been lately directed to the subject of attaching to each zillah school the means of teaching practical agriculture; for there is, as Dr. Mouat most truly observes, no single advantage that could be afforded to the vast rural population of India, that would equal the introduction of an improved system of agriculture".

one grade are to climb through the other grades by means of scholarships obtained in the lower school, and tenable in the higher. To provide masters, Normal Schools are to be established in each province, and moderate allowances given for the support of those who possess an aptness for teaching, and are willing to devote themselves to the profession of school masters. By this means it is hoped that, at no distant period, instructions may be in operation in all the presidencies, calculated to supply masters for all classes of schools, and thus in time greatly to limit, if not altogether to obviate, the necessity of recruiting the educational service by means of engagements made in England.

XIII—Medium of Education—The Vernacular Language.

"The medium of education is to be the Vernacular languages of India, into which the best elementary treatises in English should be translated. Such translations are to be advertised for, and liberally rewarded by Government as the means of enriching Vernacular literature. While, therefore, the Vernacular languages are on no account to be neglected, the English language may be taught where there is a demand for it, but the English language is not to be substituted for the Vernacular dialects of the country. The existing institutions for the study of classical languages of India are to be maintained, and respect is to be paid to the hereditary veneration which they may command. Female education is to receive the frank and cordial support of Government, as by it a far greater proportional impulse is imparted to the educational and moral tone of the people, than by the education of men. In addition to the Government and aided colleges and schools for general education, special institutions for imparting special education in law, medicine, engineering, art, and agriculture, are to receive in every province the direct aid and encouragement. The agency by which this system of education is to be carried out is a director in each province, assisted by a competent staff of inspectors, care being taken that the cost of control shall be kept in fair proportion to the cost of direct measures of instruction.

To complete the system in each presidency a university is to be established, on the model of the London University, at each of the three presidency towns. These universities are not to be themselves places of education given elsewhere ; they are to pass every student of ordinary ability who has fairly profited by the curriculum of school and college study which he has passed through, the standard required being such as to command respect without discouraging the efforts of deserving students. Education is to be aided and supported by the principal officials in every district, and is to receive, besides, the direct encouragement of the State by the opening of Government appointments to those who have received a good education, irrespective of the place or manner in which it may have been acquired ; and, in the lower situations, by preferring a man who can read and write, and as equally eligible in other respects, to one who cannot."

"It is probable that neither Mr. Wingfield nor Mr. Atkinson would propose to carry out their views to the full extent of their literal meaning ; but I think it necessary to declare that Her Majesty's Government have no intention of sanctioning a departure from the principles already deliberately laid down ; and that, while they desire that the means of obtaining an education calculated to fit them for their higher position and responsibilities should be afforded to the upper classes of society in India, they deem it equally incumbent on the Government to take, at the same time, all suitable measures for extending the benefits of education to those classes of the community 'who,' as observed in the Despatch of July, 1854, 'are utterly incapable of obtaining any education worthy of the name by their own unaided efforts.' "

These extracts undoubtedly show that, until the State has placed the means of elementary vernacular education within the reach of those who are unable to procure it for themselves, an annually increasing Government expenditure in any Province upon "the higher classes who are able and willing in many cases to bear a considerable part at least of the cost of their

own education," is not in accordance with the main object of the educational code, nor with the subsequent views of the Home Government.

Another remarkable feature in the despatch of 1854 is, that it makes education a regular part of the business of the State, to be conducted by a Government machinery, on principles intended for equal application to the whole of India.

Thus for good or evil, the East has come in intimate contact with the West. The unchanging East had often in the past "seen mighty legions pass and plunged in thought again". This time, however, the impact is leaving behind a more permanent impress. To me personally, civilization is a mosaic, the richer it is, the more diverse and picturesque are the elements that go to build it up. The world has need of "Karmayogins"—men of great purpose who delight in action, men of strong common sense, men who are constantly knocking at the locked door of Nature's secrets and are harnessing her forces to their own ends, men who in their communal and national life always try to play the game—and these typify western culture at its best. The world have equally the need for "Jnanyogins"—men who love knowledge for its own sake, who renounce their all in contemplating the beauties of the universe, and in establishing direct contact between their own soul and the Universal spirit. The West bereft of the spirit that suffered at the Cross led to the world chaos of 1914 and its aftermath. In the East where the intellectuals withdrew from the world into the innerself of spiritual life, ignorance and superstition, poverty and squalor have grown up as luxuriant tropical weeds and enveloped the lives of the masses.

In their synthesis lies a new hope for the world ; in their unmeaning clash—a wreckage of much that is of immense value in the scheme of life.

CHAPTER III.

Wastage of Time and Energy of our Youths—Vernacular as the Medium of Instruction.

The students, or rather their guardians, are guided by instinct or habit like bees or ants and not by reasoning about the proper course to be pursued. They do not bestow a moment's thought on this important problem and follow the beaten track with tragical consequences.

A degree or diploma with a view to enter Government service or professional career, is the only stimulus before our students, at least to 99 per cent. of them. It is conveniently forgotten that according to the census report for 1931 only 8 in 1000 are supported by Government service and the number is made up of chaprasis, barkandazes (court-peons), petty clerks, constables, sub-inspectors, rural sub-registrars, etc. As for coveted posts, *e.g.*, judgeships, deputy magistrateships or moonsiffships, accountant generalships etc., their number is very limited, and the professions are already overcrowded ten times over. Yet for the sake of these, thousands every year rush to their doom, so to speak. Trade, commerce and industry present no attraction with the result that they have been monopolised by Europeans and non-Bengalis as I have been pointing out (cf. Vol. I. p. 440). The degree-hunting mania has led to most disastrous consequences. Real education is neglected or lost sight of, as the following correspondence in the daily papers show:

"One of the most important causes that have led to the lower standard of efficiency in different subjects on the part of Bengali students appears to me to be the fact that the market is overflooded with notes, sketches, helpbooks etc. Some thirty years ago, they were rare, and when available even brief and to the point. It is a pity that some of the veteran educationists of

Bengal have been writing notes on English texts with Bengali translation of every passage and a Bengali equivalence for the easiest English word—ingloriously voluminous books which are devoured by every student all over the country. But what has been the natural consequence? Boys count solely on their books, seldom pay heed to their professors and teachers. Originality and habit of independent thinking are fast disappearing to the intellectual decay of the whole nation! Not so in other provinces in India. I could respectfully invite the attention of University authorities to the above facts."—*The A. B. Patrika,* March 28, 1933.

The writer thinks that other provinces are better off in this respect. The following letter will show that the complaint is just the same in Bombay.

I—"More Harm than Good."

"Innumerable annotations and guides such as 'English in an hour', 'English at a glance', 'English in two days', 'English in a nut-shell' and such other countless imitations which have sprung up like mushrooms go a great way in misleading the students. It is with a desire to warn them against such guides which are pouring in like an epidemic that these few lines are written.

"It seems that the host of annotations put up in the market aim more at money-making than rendering the right sort of help and guidance to the students. Such imitations not only tax the memory and pockets of the poor students but act as a great impediment in their steady progress.

"These various guides do more harm than good in the study of English, which every well-wisher of the students will not fail to note".—*The Bombay Chronicle,* March 8, 1933.

II—The Calcutta University and Vernacular Medium.

It is rather interesting and at the same time distressing to note that all the letters lay stress on the failure to learn correct English and not on real education.

The Calcutta University is said to have made an attempt to set matters right by substituting vernaculars in place of English.[1] Let us see how it proceeds.

The report of the Matriculation Regulations Committee* appointed by the Senate, which was submitted on May 23, 1932, shows a curious mentality on the part of our University. It is said to *vernacularise* our education as "the Examination in all subjects other than English shall be conducted through the medium of one or other of the major Vernaculars, *viz.*, Bengali, Urdu, Assamese and Hindi." The major vernacular languages shall consist of two papers carrying 100 marks each, while English has been assigned maximum marks, *i.e.*, 300 marks. To quote verbatim: "The Matriculation Examination in English shall be a test (*a*) of ability to write clear, simple, and correct English and (*b*) of intelligent comprehension of plain modern English on familiar subjects.

"The course in English shall include select texts in prose and verse to be prescribed by the Syndicate on the recommendation of the Board of Studies in English * * * * Questions shall be set under the following heads:

(*a*) Passages from prescribed texts;
(*b*) Simple unseen passages;
(*c*) Grammar and Composition;

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[1] The Quinquennial Review on the Progress of Education in Bengal repeats the parrot-cry that *Vernacular would be used for the diffusion of western learning.* "Macaulay's famous Minute of 1835 which led to the introduction of the English medium of instruction and examination looked forward to the time when the vernacular would be used for the diffusion of western learning. After about a century, the province has now declared unmistakably in favour of the vernacular medium in schools"

In reality nothing of the kind has been done. The same 7 to 8 years' time would be wasted in learning "clear, simple and correct English."

* The matter is just now (Sept. 1934) under consideration with the Education Minister.

(*d*) Translation from one of the recognised Vernaculars into English ;

(*e*) One simple essay ;

(*f*) English history."

All other subjects carry 100 marks each. It passes my understanding why Indian history questions are to be answered in the vernacular while English history questions must be written in "clear, simple and correct English." *This is vernacularisation with a vengeance.* In volume I (p. 289, *et seq.*), I have discussed at length the huge wastage of time involved in mastering a foreign tongue and writing it with anything approaching correctness ; but as our intelligentsia still labours under the inferiority complex, namely English history must be learnt in correct English and so on, I am obliged to devote space to it. Strange as it may appear, it is the educated people who are most clamorous in insisting on English.

An Englishman, an educationist, who has entered into the spirit of Indian life exclaims with bitterness :

"Similarly, official suggestions for the wider use of the vernacular in schools have been attributed to a desire to restrict the teaching of English, and to revert to the policy of *Divide et impera.*"—Mayhew : *The Education of India,* p. 71.

Since Macaulay's time, *i.e.*, in exactly a century, Bengali has made great strides. One of the most influential dailies, with the largest circulation, is quite on a par with any nationalist paper conducted in English ; moreover, it has the merit of containing valuable articles on trade and industry. Those who read it can dispense with English dailies.[1] Then there are the Bengali periodicals—*The Prabasi, the Basumati, the Bharatbarsa* etc., which often contain valuable articles on modern Japan, China, Afghanistan, Persia, Turkey, not to speak of European countries and America. In fact, average graduates do not know a fraction of the information contained in these Bengali journals. And yet, because they are "graduates," they are often con-

[1] *The Ananda Bazar Patrika.*

sidered as something sacrosanct.[4] "They are not educated in the proper sense but they are only college passmen."

As instances of the homage we pay to English, the following may be cited. In the Calcutta High Court, proceedings are conducted in English. The last occasion when I sat on the jury box, *i.e.*, before I had completed my sixtieth year, there was a sessions case of which I was chosen foreman. The judge was a Bengali and a former pupil of mine. The accused was a Bengali, the Advocate General, the Standing Counsel were all Bengali barristers besides an Eurasian barrister, who of course knew Bengali. There was the farce of the evidence in each case being translated by the Court interpreter, before it could be "heard" by the Judge and the Jurors. This had the effect of protracting the trial to an unusual length.

Then there is the "Inter-Provincial Conspiracy" case going on before a Special Tribunal, (Oct. 1934) consisting of two Bengali judges and an Englishman, an I. C. S. The latter of

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More important is the effect of the vernacular press and political emissaries to the non-English-knowing world. The efforts of politicians and journalists are undoubtedly giving an edge to the study of vernacular composition, and it is no longer fashionable for Indian politicians to assert, what is too often true, that they can express themselves more easily in English than in their vernacular. The enlarged provincial legislative councils contain many members who are unable to speak in English, and not a few who prefer to speak in the vernacular, in order to secure a wider audience within and without the council chamber. Generally one may say that the number of Indians who need the gift of clear vernacular speech and writing, or who call on others for such gifts, is growing steadily.—Mayhew, *l.c.* p. 198.

A correspondent very well puts it :—

"The undue importance now given to the learning of English, both by parents and by teachers and the difficulty of mastering a foreign tongue have combined to ingrain the idea in the students that education actually means learning of English to which major portion—if not whole of their energy is devoted. Hence a man who has acquired only a smattering of English and can make an exhibition of it in season and out of it passes as an educated man, though he may be totally ignorant of all other subjects of primary importance. If vernacular is allowed to take its proper place and the abnormal craze for English dies a natural death, a sense of true education is sure to dawn upon the majority of students."—*The A. B. Patrika*, Aug. 15, 1934.

course knows Bengali ; in fact, he had to pass an examination in vernacular, before he was confirmed. The accused, 32 in number, are all Bengali-knowing. Some hundreds of witnesses are being examined. The same farce is being enacted. The trial has already gone on for more than 9 months, (Oct. 1934) and there is no knowing when it will be concluded.

Let me quote here the opinions of a few Bengalis who have bestowed thought on the subject. I need not comment on them.

No one who has the least love for his country can wish that instruction should be imparted to the youth of his country in any language other than that, the spirit of which they have drunk with their mother's milk and imbibed with the air that they breathe, and which has been fostered and nouriahed in the environment in which they live, *viz.*, their mother-tongue. This is only a truism, for take a few examples, no Englishman would dream of the youth of his country being trained through any language other than English, nor, for that matter, a Frenchman otherwise than in French.

We must, however, clearly realise that under circumstances which God alone controls, the position of our country is entirely different from that of either England or France or any other country which manages its own affairs, and this remark applies not only to educational matters but to each and every affair concerning the country. One consequence, however deplorable, of this position, is that we have to spend all our energy from our childhood upward in learning a foreign language *viz.*, English, though this involves neglect of our own mother-tongue. I remember, after having as a little boy passed the Vernacular Examination in Bengali, Arithmetic, History, Geography, Geometry, Mensuration, Hygiene and Physics, I joined an English School which taught up to the Entrance—now called Matriculation—standard, and had to spend five long years, mainly in acquiring a knowledge of English. And with what pains! I remember picking up every new word, new phrase, new idiom and well-turned expression with the same eagerness as a miser piles up his hoard of money. The trouble taken by us in learning English was certainly much more—at least not less—than the labour bestowed by our ancestors in learning the Vedas. And the result of all of this trouble was that Mr. Rowe and others who taught English in our colleges in those days characterised the English written by us as Babu-English. I had the opportunity of talking over this matter with several eminent professors of the Calcutta University and they one and all condemned in one voice the very defective knowledge

of English, displayed by the majority of students who enter college classes not excluding the M.A. If this is the result achieved by our students after years of trouble taken in studying English up to the M.A. class, when the medium of instruction is English, one can easily imagine how they will fare when English is relegated to the position of a second language. All the avenues of employment will surely be closed to our youngmen and their places usurped by men from other provinces. We must fully envisage this contingency before taking any decision in this matter.

To my mind, it appears that in seeking to introduce Bengali up to the Matric Standard, we are beginning at the wrong end. At present all public business is conducted in English. It is used in the High Court and very largely in the Subordinate Courts. It is used in the Legislative Councils, in the Govt. offices throughout the country including the Secretariat, and the public Press and almost everywhere else. So far as I can see there can be no obstacle in the way of introducing the use of Bengali in all these institutions. The use of English is necessitated to meet the convenience of the few Englishmen who are in the service of Government or practise in the law courts; but surely, it is more reasonable and easy that these few Englishmen should acquire a working knowledge of the vernacular of the country in which they live, than that the entire population of the country should be made to learn a foreign language and neglect their own mother-tongue. It appears to be eminently desirable that this concession should be made to the sense of self-respect of the Indian people by securing for their vernaculars that place in their national life which is their due.

I speak from personal experience in the Baroda State, in which the official language used throughout the State including the High Court and the Secretariat is Gujrati and only a small section exists in the Secretariat for carrying on business with the Government of India in English. No inconvenience is felt, and foreigners working in the State have got to learn the official language. Why cannot this be done in British India? Once this is done, the question of the medium of instruction in the schools and colleges will be automatically solved and the Vernacular established as the medium of instruction throughout the country. The English language can then be taught as a second language with advantage, in the schools and colleges, and its position in our country will still be the same as, or perhaps better than, that of English in France or of French in England. It will also be the *lingua franca* of India and being the language of the rulers of the land, and also being possessed of one of the finest literatures in the world, a good knowledge of it will carry with it a prestige which will be a sufficient temptation for our countrymen to bestow more than ordinary care on

its acquisition. We must, however, get rid of the mentality which at present brands an imperfect knowledge of English with the mark of inferiority in social and official life, and our aim should be to acquire only as much ease and fluency in the use of the language as a foreigner may be expected to possess.

In this connection I recollect an incident which happened during the Minto-Morley regime, when in pursuance of the instructions of Lord Morley to establish good feelings between the Europeans and the Indians, a distinguished Indian member of the Bar arranged for a social gathering at his place at which a Japanese gentleman happened to be present. The host welcomed his guests in a speech delivered in pure and graceful English for which he was famous. The Japanese gentleman rose to reply and while acknowledging his inability to emulate his host in his knowledge of English, expressed the hope that it might never be the misfortune of the Japanese people to acquire a foreign language with that amount of trouble which his host must have devoted to its acquisition. The reason why I recall this incident is that our aim should be to acquire only a working knowledge of English and utilise the time and energy that will thus be saved in other directions, besides improving our knowledge of the Vernacular. I consider that there should be a country-wide agitation to secure for the Vernaculars their rightful place in our national life. But so long as this consummation is not achieved, no steps should be taken that would further weaken the position of the English language in the scheme of national education and I would ask the members of the conference which is going to meet for deliberating over this matter to ponder carefully over the wisdom of dethroning English and thereby injuring our prospects in life, which are by no means bright now, until we can successfully apply the remedy suggested above for radically curing the evil.—M. K. Ghatak, *The A. B. Patrika*, July 3, 1934.

III—Medium of Instruction and Development of Intelligence.

Mr. Upendra Nath Roy, Head Master, Kalihati R. S. H. E. School and Mr. Prannath Sarkar meet very ably certain objections raised by Mr. Ghatak.

Mr. Ghatak is afraid that if vernacular be made the medium of instruction, English will suffer in our secondary schools.

But should we forget that Education is for the intellectual development of the child? This intellectual development may be achieved through the teaching of certain subjects which have been included in the curriculum. The secondary school curriculum is meant for the

intellectual development of children of ages varying from about eight to about sixteen. Each of the subjects of this curriculum, English, Bengali, Science, Mathematics, History, Civics, Geography, Classics, Hygiene or Drawing, should be taught for itself and not for the proficiency in one subject alone, if the object of including these in the curriculum is to be achieved.

Now, if you have an English textbook for a subject other than English and teach the subject through the medium of English, the subject becomes unintelligible to a large percentage of the boys of the class which consists generally of a few bright boys, a large number of boys of very ordinary intelligence and some below-average boys too. The teacher's business turns into translating what is written in English, rather than in rousing the interest of his pupils in the subject, in making the subject a vivid one. The subject is not really taught; the good boys commit the pages to memory and secure good marks in the examinations and the backward boys are gradually eliminated. But neither the good nor the backward boys learn much with the result that many boys go up to the M.A. classes without knowing when India passed into the hands of the British Crown from the management of the East India Company or in which continent Constantinople stands.

Do we not thus sacrifice our boys to the learning of English? But, is even English properly learnt in this way? Certainly not.

Teachers of History, Geography, Mathematics, Science, Classics and other non-English subjects may not all be particularly well-equipped for the teaching of English, and yet if they all be compelled to teach through the medium of English it is not unlikely that the knowledge of English, (of its pronunciation, grammar, idiom etc.) will be greatly neutralised in non-English classes.—*The A. B. Patrika*, July 10, 1934.

When students are not intently thinking to understand the meaning of a difficult passage in the light of the teacher's instruction, it is the matter and not the form of the instruction that engages their attention. If the instruction is in English, they hardly profit by it either in its linguistic aspect which is thrown into the background; or in its literary aspect inasmuch as the ideas are not brought home to their minds by reason of their "defective knowledge" of English. Substitution of Vernacular for English will be a step in the right direction which is likely to further the prospects of our young men instead of "jeopardizing" them. As regards the teaching of "Colloquial English", there are books on "Spoken English" written by experts. The teacher's instruction will give them only a bookish knowledge (relating to text books), if any at all.

The objection that the proposed change will put undue prominence on the Vernacular cannot stand examination. A sound knowledge of

the Vernacular serves as a good foundation for the mastery of English through assimilation and differentiation. Further, diffusion of the knowledge of English literature (with its quickening influence) throughout the masses is not possible except through the Vernacular literature enriched with translations. The rapid progress of Japan has been attributed to her assimilation of western thought, by no less an authority than Dr. West, the author of "Bilinguism".

The usual logical processes (classification, generalisation, analogy and the like) for economising and minimising memory-work being inapplicable to the numerous irregularities of the English language in all its styles, a foreign learner of English has to labour under serious disadvantages. To make all students aim at getting "literary" education would involve enormous wastage. The common run of students had better remain contented with only a working knowledge of English." —*The A. B. Patrika*, Aug. 16, 1934.

Dr. Anath Nath Chatterji in his able Report on the causes of the poverty of the students' health enumerates among others "the strain on the students due to *a foreign medium of education.*"

IV—Classical Education and the Development of Intelligence.

The French writer whom I have quoted elsewhere has some valuable remarks to make, which are far more applicable to us.

"One might consent, perhaps, at a pinch, to continue to accept all the disadvantages of our classical education, although it produced nothing but discontented men, and men unfitted for their station in life, did the superficial acquisition of so much knowledge, the faultless repeating by heart of so many text-books, raise the level of intelligence. But does it really raise this level? Alas, no! The conditions of success in life are the possession of judgment, experience, initiative, and character —qualities which are not bestowed by books. Books are dictionaries, which it is useful to consult, but of which it is perfectly useless to have lengthy portions in one's head.

"How is it possible for professional instruction to develop the intelligence in a measure quite beyond the reach of classical instruction? This has been well shown by M. Taine.

'Ideas', he says, 'are only formed in their natural and normal surroundings ; the promotion of the growth is effected by the innumerable impressions appealing to the senses which a young man receives daily in the workshop, the mine, the law court, the study, the builder's yard, the hospital ; at the sight of tools, materials, and operations ; in the presence of customers, workers, and labour, of work well or ill done, costly or lucrative. In such a way are obtained those trifling perceptions of detail of the eyes, the ear, the hands, and even the sense of smell which, picked up involuntarily, and silently elaborated, take shape within the learner, and suggest to him sooner or later this or that new combination, simplification, economy, improvement or invention. The young Frenchman is deprived, and precisely at the age when they are most fruitful, of all these precious contacts, of all these indispensable elements of assimilation. For seven or eight years on end he is shut up in a school and is cut off from that direct personal experience which would give him a keen and exact notion of men and things and of the various ways of handling them.

'. . . At least nine out of ten have wasted their time and pains during several years of their life—telling, important, even decisive years. Among such are to be counted, first of all, the half or two-thirds of those who present themselves for examination—I refer to those who are rejected ; and then among those who are successful, who obtain a degree, a certificate, a diploma, there is still a half or two-thirds—I refer to the over-worked. Too much has been demanded of them by exacting that on a given day, on a chair or before a board, they should, for two hours in succession, and with respect to a group of sciences, be living repertories of all human knowledge. In point of fact they were that or nearly so, for two hours on that particular day, but a month later they are so no longer. They could not go through the examination again. Their too numerous and too burdensome acquisitions slip incessantly from their mind, and are not replaced. Their mental vigour has declined, their fertile capacity for growth has dried up, the fully-developed man appears, and he is often a used-up man.'

"The illustrious psychologist subsequently shows us the difference between our system and that of the Anglo-Saxons. The latter do not possess our innumerable special schools. With them instruction is not based on book-learning, but on object lessons. The engineer, for example, is trained in a workshop, and never at a school, a method which allows of each individual reaching the level his intelligence permits of. He becomes a workman or a foreman if he can get no further, an engineer if his aptitudes take him as far. This manner of proceeding is much more democratic and of much greater benefit to society than that of making the whole career of an individual depend on an examination, lasting a few hours, and undergone at the age of nineteen or twenty.

"In France, where the contrary system prevails—in France, which with each succeeding generation is falling more and more into line with China—the sum total of the wasted forces is enormous."—G. Le Bon: *The Crowd.*

CHAPTER IV.

Neglect of Primary Education and its Effect on the Masses.

The time is long past when anybody could seriously contend that the bulk of human beings were made for physical labour only and that even the faint glimmer of rudimentary knowledge was not for them. On the contrary, it is at present universally recognized that a certain minimum of general instruction is an obligation which society owes to all its future members, and in nearly the whole civilized world every State is trying to meet this obligation only in one way, namely, by making elementary education compulsory and free. And thus it is, that, led by the German States, country after country in Europe and America and Japan in the East have adopted this system of free and compulsory education.—G. K. Gokhale: *Speech on Free and Compulsory Education*—Imperial Legislative Council, 1910.

It has been shown all along, how the vast resources of this fair province are frittered away by our rulers. Unless you raise the average intelligence of the masses by means of primary education, no Royal Agricultural Commission with its appendage, the Imperial Agricultural Research Council costing huge sums to the tax-payer will avail. The essential and most fundamental thing is that they should be taught to be frugal in their habits and to lay by something against the lean years. They are sunk in gross superstition, and age-long conservative ideas govern their daily routine of life. The one thing needful, our Government fights shy of; for it knows full well what the awakening of the proletariat means. Hence the criminal neglect of compulsory primary education.

Emerson, writing some three scores of years or more ago in praise of New England "because it is the country in the world where is the freest expenditure for education", observes: "The poor man, whom the law does not allow to take an ear of corn when starving, nor a pair of shoes for his freezing feet, is allowed to put his hand into the pocket of the rich, and say, you shall educate me, not as you will, but as I will: not alone in the elements, but, by further provision, in the

languages, in sciences, in the useful and in elegant arts. The child shall be taken up by the State, and taught, at the public cost—the rudiments of knowledge, and, at last, the ripest results of art and science."

Every modern State now recognises the promotion of primary education as its first duty. Not to speak of Japan and China, even Angora, "with its terrible poverty", as also Soviet Russia is striving hard to make up for lost time. Bengal has been blessed with 175 years of enlightened British rule, with the result that barely 7—8 per cent. of the population is literate.

A quarter of a century has elapsed since Gokhale began his campaign for elementary education and his Bill was thrown out by Lord Hardinge's Government, and we are practically no better now, for the Census Report, taken in February 1931, says: The total literate population of India in 1921 was 22,623,651 ; and is now 28,131,315. On the whole it has risen from 7 to 8 per cent.

But Japan, in the course of half a century, has achieved marvellous progress in her fight against illiteracy. The following graphic accounts of the progress of literacy in Soviet Russia, Japan and China read almost like a romance and stand in glaring contrast with the state of things in India.

I—Literacy in Soviet Russia.

How Soviet Russia by systematically educating its adult citizens on a scale never before attempted by any country hopes to abolish illiteracy by 1933 or 1934 is told by Dr. Albert P. Pinkevitch, President of the Second State University in Moscow and one of the leaders who formulated educational policies of the new Soviet Government following the revolutions. Dr. Pinkevitch, who was studying American schools under the auspices of the International Institute of Teachers' College, Columbia University, believes that the hope of the present government lies in the education of adults. The methods are comparable only to the adult education movement in America (he said) adding that the two channels for learning in Russia are in professional and political culture education. He describes

"cottage reading houses" in the small villages where illiterate peasants are learning to read, write and to take a part in their government.

Discussing the important phase of Russia's educational programme known as political enlightenment, Dr. Pinkevitch said, the term was peculiarly Soviet. "It is not found in the international pedagogical literature nor is it found in our own literature during the first year of the revolution. Our country is backward in the sphere of general enlightenment, and the placing of great emphasis on adult education in a country such as ours therefore is entirely natural".

"Unless the masses are enlightened a heightening of their economic welfare is impossible, co-operation is impossible and a genuine political life is impossible. All these facts make it clear that the communists, in undertaking the work of popular enlightenment, are not moved by philanthropic sentiments, but rather by the settled conviction that knowledge is one of the most powerful of weapons and, if the masses are to be victorious they must possess it in abundance. Among the first facts faced by the revolutionary government was the alarming illiteracy of the people. One of our primary tasks is consequently the abolition of illiteracy. By 1933-34 the ability to read and write should be the possession of every citizen of the Soviet Union. Such, at least, is the goal set by the educators in Russia to-day".—*The Amrita Bazar Patrika*, June 19, 1929.

An American writer, by no means partial to the Soviet regime, has been constrained to observe: "Its cafés cater to people who do not mind dirty cutlery and soup stains on the walls. Its hotels are little better than barns. Its book-stores—and there you find the Great Exception—its book-stores are excellent. Better than they have been, for the proletariat is more hungry for knowledge than it is for cakes, or even bread. —Nagley Farson: *Seeing Red To-day in Russia*, 1930, p. 162.

Lord Pentland who has recently travelled in Soviet Russia and who is by no means enamoured of its ways and methods has, nevertheless, the fairness to pay the following tribute to the "achievements of the Communist Regime".

"And in spite of the terrible persecution of priests I believe it is on the cultural side that Leninism is having the greatest and most beneficial influence. The thousands of new schools and teachers, the millions of books which have been printed, the new kinemas and places of amusement cannot fail to have some permanent effect on the country. One must remember, too, the splendid work which has been done both for the cure and prevention of disease and in alleviation of the physical distress, particularly among children, which followed the civil war." —*Manchester Guardian*, Nov., 1930.

II—Obligatory Elementary Education in Italy.

"Children are prepared to confront life and not just to be able to win certificates for answering questions which test the memory and not the reason or sentiment. They are also, from their earliest days, taught to appreciate the ethical and cultural things of life.

* * * * * *

Obligatory elementary education has been extended to the age of fourteen. . . . . The boys are taught to respect the dignity of manual work. To be a skilled artisan—a man who can solve problems or invent or make things—is looked on in the elementary popular schools as a greater thing than to yearn for a 'white collar' job".—J. S. Munro: *Through Fascism to World Power*, p. 389.

III—Primary Education in Japan.

The Emperor of Japan's rescript for encouraging education runs as under:

"Hereafter education should be so diffused that there shall be no ignorant family in the land and no family with an ignorant member."

"In modern times, the progress of a country's civilization is gauged by the literacy of its peoples. The percentage of literacy in Japan is 99.23 of the total population, there being a slight

difference between the percentage of men which is 99.32 and that of women which is 99.15. According to the above-mentioned test, Japan is in the very forefront of civilized nations.

"The amount spent on primary education in Japan is £225,00,000 while the total expenditure on education is £550,00,000 equivalent to about 40 per cent. of the national revenue. As a result of getting seven years' compulsory education, the average intelligence of the boys and girls has evidently increased, and their interest in life widened ; they look more cheerful than boys and girls of the same age do in India. * * * The girls employed in cotton mills or in hotels are the products of these primary schools and they do credit to the education that they have received."—Sir Lalubhai Samaldas: *Impressions of Japan,* 1933.

IV—The Power of the Press in Japan.

In but one Oriental country to-day is the daily press a true mirror of the people's mind ; a leader in the development of the national character. This is Japan, land of cherry blossoms indeed, but symbolized no less by the kimono-clad lady interviewer and the hieroglyphic headline. Nowhere else in the Eastern hemisphere are the peasants commonly literate and the coolie labourers able to purchase the latest edition of the news. Nowhere else is the vernacular press so widely disseminated, or a social force exerting so powerful an influence over a reading public of millions.[1]

Only in the Island Empire do the people take with a natural zest to that essentially modern creation, journalism. But there, besides the *matutinal* bowl of rice, is nowadays propped a glaring sheet of cabalistic characters that proclaim the words of London, Paris, Peking and Washington. Before the gates of feudal palaces run the little newspaper girls with their tinkling bells and their quavering equivalent of "Extra !

[1] The two leading newspapers of Japan, namely, the Tokio *Asahi* and the Osaka *Manichi* have a combined daily circulation of 2,500,000. —Upton Close.

Extra!" The ceremonious slow-moving life of ancient times is punctuated by the boom of the flash light, and the silk-clad statesman fears, more than the swords of the Samurai, the interrogations of the reporter.

V—Where Coolies can Read.

"All classes of people, in rural as well as urban districts, are touched by the typical news-stands, brilliant with magazines whose covers portray the national taste in maidenly loveliness, with sunday pictorials, 'Illustrated News' and comic cartoon sheets.

"One sees rickshaw coolies squatting by the curb, looking like a colony of mushrooms under their straw hats, absorbing the most recent society scandal or the political news from abroad while they wait for passengers. A business man, imposing in silk robe and Derby hat, flutters by with a copy of a gazette tucked in his kimono sleeve. A small stenographer in wooden shoes clatters into the grub store at the noon-hour and unfolds the Woman's page while she sips in 'isu-curemu' soda through a straw.

"Incongruous though it is, this entire pageant of Japanese life, it is from just such conditions, with all the manifold problems they present, that the newspaper rises with its message. In a land so filled with striking contrasts, so ceaselessly changing, when the air is charged with unrest and everyone asks of his neighbour, 'Where are we going?', the one institution with the ability to give expression to these undertones is the daily press.

"There are more than 1,000 newspapers in various parts of Japan, exclusive of periodicals, which number 3,000 more and of these ten attain five-figure circulation. Their total daily issue has been estimated at more than 5,000,000 copies. But their mere number and volume are not the most significant feature of such enterprises; it is the leadership they exert in the progressive thought of the nation."—Miriam Beard.

VI—The Power of the Press in China.

There were practically no newspapers in China at the time of the establishment of the Republic. To-day there are hundreds and while most of them are small, there are some with circulations running above hundred thousand. The two leading newspapers in Shanghai *The Skun-Pac* and *The Sinwantoo* have difficulty in obtaining newsprinting equipment fast enough to keep up with their growing circulation. The Commercial Press, the largest printing establishment in Shanghai which publishes magazines and school books, is a monument to the growth of modern education in China.

VII—Denmark and Mass Education.

What the raising of the average intelligence of a people by means of mass education means is well illustrated by the case of Denmark.

Denmark is a kingdom of 16,568 sq. miles and a population of 3,435,000. Elementary education has been widely diffused in this tiny land since the beginning of the last century, and in 1814 it was made compulsory. The school age is from 7 to 14. The instruction in the public schools is mostly *gratuitous*. Out of her total revenue of Kr. 3,21,738,000 (=Rs. 23,40,00,000) she spends Kr. 62,467,000 or nearly one-fifth on public instruction.[1] Of her productive area 6 per cent. is forest and of the remainder less than one-half is arable, and the remainder pasture and meadows. In 1925 the United Kingdom alone imported from Denmark butter worth £17,110,534, eggs worth £5,491,744

[1] Even for higher education, the State does very little in Bengal. By far the larger proportion of burden is borne by the people.

Out of a total expenditure of Rs. 4,22,87,036 on all forms of education for boys as well as girls, the Provincial exchequer contributed only Rs. 1,44,46,851 in the year 1931-32 according to the figures given in the Quinquennial Review of the Progress of Education in Bengal. Of the 51 colleges in Bengal, only 12 are managed by the Government and 21 are aided, the Government meeting 33 per cent. of the total expenditure. These figures are exclusive of the University of Calcutta. The Government of Bengal contribute about 14 per cent. only of the total income of the Calcutta University, whereas the 19 Universities in England and Wales receive Parliamentary grants to the extent of 34·8 per cent.

and bacon worth £22,160,384. The prices of these three items amount to nearly 63 crores of rupees. In short, the main source of wealth of Denmark lies in her dairy produce.

VIII—MODERN ITALY AND AGRICULTURAL IMPROVEMENTS.

The reclamation of the marshy lands and the intensive increase of grain production up to national self-sufficiency have been rendered possible in Italy because of the intelligence and education of her people.

"In September 1929 a *Bonifica Integrale* (Integral Land Reclamation) Under-Secretary portfolio was created in the Ministry of Agriculture with *liaisons* with the Ministries of Public Works and, later, of Corporations. The work now in hand ranges over an area which totals over seven-and-a-half million acres. To public funds are added private consortiums with State guarantees. The most conspicuous success is that of the Pontine Marshes whose reclamation has baffled engineers from the times of Imperial Rome. The first victory in the war against nature in this zone was signalised by the institution of the town of Littoria, which is a reasonably flourishing township of ex-servicemen and their families drawn from all parts of Italy. Laid out as a Roman *quadrata*, it proudly stands as a new town, the centre and capital of a new Commune, amid a network of roads and irrigation canals, overlooking cultivated fields in a region which less than seven years ago was a pestiferous, malarial swamp, haunted by fever-stricken wraiths of neglected humanity.

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"Accompanying the *Bonifica Integrale* is, as I have said, the work of raising enough grain for Italy's internal needs. This 'Battle of the Grain' had its zero hour in June 1925. Italy's requirements amount to about 75 million quintals of grain. Of this total Italy produced 44 million in 1922 importing the balance. In 1925, when the 'Battle' started, it imported 65½ million. The 1932 crop marked a victorious conclusion with 75,151,600 quintals. This general increase of production has

been accompanied by a general all-round agricultural increase. In May 1933 it was announced that the 'Battle of the Grain' was to be transformed into 'The Integral Battle of Agriculture.' Fascist Italy has accordingly moved to the assault of the second line of trenches in its great war for the ruralisation of Italy."—I. S. Munro: *Through Fascism to World Power*, pp. 362-63.

IX—Bengal Government and Primary Education.

The Bengal Government recently (Aug. 1934) takes credit for what it has done to encourage primary education. The following Press Note has been issued:—

"Bengal spends about Rs. 67 lakhs on primary education for boys and a little more than Rs. 15 lakhs on primary education for girls. There are over 44,600 primary schools for boys and 18,000 primary schools for girls. In these primary schools 17,25,000 boys and 5,60,000 girls receive their education. Thus nearly 24 lakhs of children are now receiving primary education in 62,600 schools at a cost of nearly Rs. 82 lakhs per year. Of the total expenditure of Rs. 82 lakhs, *Government contribute nearly Rs. 27 lakhs*, the District Boards, Municipalities and other Local Bodies about 20·5 lakhs, and the parents, guardians and the local people in fees, subscriptions, donations and endowments about Rs. 34·5 lakhs." (*Italics are mine*).

Here is a "civilized" Government which raises 30—32 crores of rupees as revenue but can afford to contribute only 27 lakhs or 0.9% approximately for primary education. Japan, on the other hand, spends about 20% of her gross revenue on primary education.

The communique is self-contradictory for it admits that this *literacy* is only in name "because it admits that the wastage is much greater. The variation in number from class to class is so great that only 4 or 5 boys out of 100 at present reach class V."

The Hartog Committee made the following pertinent observations: "The vast increase in numbers in primary schools

produces no commensurate increase in literacy, for only a small portion of those who are at the primary stage reach class IV in which the attainment of literacy may be expected." "In Bengal more than 80 per cent. of boys entering elementary schools bid good-bye to their studies after a year or two and relapse into illiteracy."

A quarter of a century ago (1908) Sir D. P. Sarvadhikary observed from his place in the Bengal Council:

"An outstanding feature of the educational figures is the preponderance of the directing and inspecting charges, though that which is to be directed and inspected has not proportionately expanded.

"Inspection may be, and no doubt is, highly necessary for sound education; but inspection-ridden education that is primarily starved can never prosper, and it is a moot question whether more money ought not to be spent on the articles to be inspected than on the inspecting machinery.

"Inspection on inspection and inspection of inspection is apt to end in shrimps and water-weed floating in the improved milk-supply, as happened in the case of the fabled Royal consumer of old."

Since then the evil has been multiplied. I can relate from personal experience the amount of money wasted in these so-called inspection. Sometimes the Inspectress of Female Education goes to a distant village, say, in the district of Khulna. She is accompanied by a posse of the junior inspecting staff. When it is borne in mind that the object of inspection is only a primary girls' school getting a poor monthly grant, the sum thus spent on inspection, including travelling allowance, haltage, etc., is out of all proportion to the grant.

It has been pointed out in the proper place that the Imperial Government robs Bengal of two thirds of her revenue, which never returns to Bengal; hence education, primary,

secondary and high, is mainly paid for by the people themselves. Let us take some of the major provinces:

Province	Population	State expenditure in rupees.
Madras	4,67,80,107	2,55,71,715
Bombay	2,18,54,866	1,90,01,654
Bengal	5,01,14,002	1,44,50,039
United Provinces ...	4,84,08,763	2,17,97,033

It is thus evident at a glance that Bengal which has the largest population and contributes the largest amount to the Imperial Exchequer gets the least amount from the Government. Nor is this all. The figures are from the Report for 1931-32 ; in the budget for 1932-33, the grant has been reduced to 1,35,21,433, *i.e.*, by 9 lakhs!

X—Illiteracy and its Effect on the Agriculturists.

It is as though, in order to save a vessel from shipwreck in difficult waters, great and exhaustive care were taken to write down all the true sailing directions and then to give the book containing those directions into the hands of seamen who could not read.—Norman Angel: *From Chaos to Control* (1932).

There is a saying in Bengali: "Uproot the tree and water it at the top". This exactly represents the policy of our paternal Government towards agriculture, the chief source of our income. The Linlithgow (Agriculture) Commission cost the ryots 13 lakhs of rupees. It lays emphasis on the importance of primary education thus:

"We are much attracted by the possibilities which a development of adult education on a large scale hold out. Such a development would antedate by at least a generation that great advance in literacy which, in our view, is essential to progress in all directions. Its influence in enlarging the scope of the cultivator's horizon and in increasing his willingness to adopt agricultural improvements and his capacity to watch over his own interests in buying and selling commodities and produce would be immense. Valuable time would thus be gained at a somewhat critical period, since conditions may not remain as favourable as they have been, and still are, for the introduction of the agricultural products of India to the world's markets with the beneficial reactions on internal prosperity which may be expected to follow. Even more important is

the stimulus which would be given to the spread of primary education amongst the youth of both sexes."

But a costly department has been created, which I am afraid, brings home very little tangible good to the agriculturist. Let me quote several authorities competent to speak on the subject.

Government officials who have bestowed any thought on the subject are unanimous in urging the prime necessity of mass education.

"The solution is summed up in one word 'Education.' Unless the masses are educated it is difficult to expect any improvement in the sanitary and economic conditions in the rural areas."—Momen : *Report of the Agricultural Commission*, IV, p. 327.

"First and foremost of all we need universal primary education". —Peddie, *ibid.*, p. 426.

"Then, again, consider the appalling illiteracy of the people. Eleven years ago, I remarked that paradoxical as it might sound, the two greatest obstacles in the way of the co-operative movement were both literacy and illiteracy. A body of illiterate men, however much they may learn co-operative principles by rote, are not in a position in actual practice to translate those principles into action. They are necessarily dependent on their literate neighbours for help and guidance. The nature of education which is meted out to the sons of cultivators in village schools instead of developing character stunts their moral sense, encourages a tendency to live more on their wits than by manual labour, and converts men, who would have been otherwise honest, into petti-fogging touts. Their literacy brings them more into touch with the Law Courts, Zamindars' Kutcheries, and Jute Offices, and not from the devotees who frequent these sanctuaries can the lessons of honesty and honest dealings be learned. Till a really sound system of primary education can be devised, which will teach men to love their land and home, which will, instead of making them hate manual labour, impress upon them its dignity, which will develop character, instead of undermining it, it is well to remember that literacy instead of being a help, can be—is, in fact,—an obstacle to the movement."—*Aims and Ideals of Agricultural Co-operation in Bengal* by J. M. Mitra, Registrar of Co-operative Societies, Bengal.

Government always begin at the wrong end. I should be the last person to disparage the necessity for scientific research. The simple fact is, however, overlooked that our agricultural population, steeped in ignorance and illiteracy and owning only small plots and scattered holdings, are not in a position to take advantage of or utilise the elaborate scientific researches which

lie entombed in the bulletins and transactions of these Institutes. Mr. Mackenna very rightly observes: "The Famine Commissioners, so long ago as 1880, expressed the view *that no general advance in the agricultural system can be expected until the rural population had been so educated as to enable them to take a practical interest in agricultural progress and reform.* These views were confirmed by the Agricultural Conference of 1888 . . . . The most important and probably the soundest proposition laid down by the conference was that it was *most desirable to extend primary education amongst agricultural classes*". Such small countries as Denmark, Holland and Belgium are in a position to send immense supplies of cheese, butter, eggs, bacon, etc., to England, because the farmers there are highly advanced in general enlightenment and technical education and are thus in a position to profit by the researches of experts. The peasant proprietors of France are equally fortunate in this respect ; over and above the abundant harvest of cereals they grow vine and oranges and have been highly successful in sericulture ; while the silk industry in its very cradle, so to speak, namely, Murshidabad and Malda, is languishing and is in a moribund condition.

Various forms of cattle-plague, *e.g.*, rinder-pest, foot-and-mouth disease, make havoc of our cattle every year and the ignorant masses, steeped in superstitions look helplessly on and ascribe the visitations to the wrath of the goddess *Sitala.* It is useless to din Pasteur's researches into their ear. As I have said above, our Government have the happy knack of beginning at the wrong end. An ignorant people and a costly machinery of scientific experts go ill together.

Recently on the occasion of Salem Bank Jubilee Celebration the supreme necessity of the removal of illiteracy among the masses was urged by the Director of Agriculture, Mr. S. V. Ramamurthi, I.C.S.

"He said in the course of his speech that he had just returned after a holiday in Europe. He visited Italy in his tour. Italy was just like India in many respects. In wealth and human energy also the Italians were like Indians. Their land tenure was the same, *i.e.*, the varam system. They too had small holdings. For several years they too had

been occupying a low position among the nations of the world. But, for some years now, they had been rising.

Three things were needed to improve agriculture. Firstly, scientists must find out improved methods, secondly, these methods must be taught to the villagers and thirdly, the villagers must carry out these methods. Madras was second to no other place in regard to the first condition. There was hardly any province in India where work was done better than was being done in the Agricultural College at Coimbatore. In Italy, five years' intense propaganda had led to the increased yield of wheat by more than one-third the former production. They used the same methods and they had the same propagandist officers. But in India, they did not adopt anything intensively as the people of Italy did. Italians believed that unless a thing was done fully there was nothing effective. In regard to the second condition, the reason for the Italians being more successful was due to spiritual influence, which served as a background for their economic development. The problem was how to make the ryots here do what was largely needed for his own welfare, and that of the nation at large. The cultivator in Italy felt he was a vital part of the nation. The agriculturists there were regarded as civil servants. In Italy, Mussolini woke the people up. In India the season must come for them to wake up. The removal of illiteracy was the only way to improve their economic conditions. Except China they were the only nation in the world to-day having a 90 per cent. illiteracy in their population. The need was urgent and vital.

Sir T. Vijiaraghavachariar (Vice-Chairman of the Agricultural Research Council) stated that the secret behind Italy's progress was that there was Sgr. Mussolini to see his orders carried out. Things were easy there. In India it was different. A complexity of routine and a multiplicity in the departments of Government had reduced efficient working. Their officers received high salaries which swallowed the entire national resources. Japan, like other western nations, had also improved greatly in recent years. Government did not allot liberally for the nation-building departments in India.

The President (C. Rajagopalachariar) in the course of his concluding remarks said that Indians had no power to regulate their affairs in order to effect improvements in regard to the expansion of primary education, or the improvement of the methods of cultivation or even to improve the national economy. Swaraj or the grant of freedom was the only panacea which was capable of curing our several ills. All money was spent now on the military and high salaries. Even under the coming reforms nearly two-thirds of the national income would be set apart as non-votable items. The nation-building departments were being starved." —*The Hindu*, July 17, 1934.

CHAPTER V.

Educational Backwardness of the Moslems of Bengal.

"I assure you that the (Hindu) Bengalees are the only people in our country whom we can properly be proud of and it is only due to them that knowledge, liberty and patriotism have progressed in our country. I can truly say that really they are the head and the crown of all the different communities of Hindustan."—Sir Syed Ahmad.

The backwardness of the Moslems in matters educational has been an object of solicitude to the Government from the very inception of British rule as we have seen before. Realising that the Hindus can take care of themselves, Warren Hastings founded the Calcutta Madrassa in 1780. But even as late as 1850, the failure of the Moslem community to profit by the opportunities presented to it attracted the attention of the Department of Education (see p. 48). The late Justice Syed Mahmood, son of Sir Syed Ahmad, very impartially discusses the causes which have operated to thwart the progress of his own co-religionists.

I—Moslems oppose English Education.

"This state of things was, however, limited to the Hindus. Far different were the feelings of the Mahomedans, whose attitude towards English education was anything but friendly. Contemporaneous evidence of this circumstance is furnished by the evidence of the celebrated Sanskrit scholar, Mr. H. H. Wilson, who at that period, and since 1823, had been a member and Secretary of the Committee of Public Instruction at Calcutta, and was otherwise deeply interested and concerned in the spread of education in India. He was examined upon the subject of the measures taken by Government in 1835, as a witness before a Select Committee of the House of Commons, on the 18th July, 1853. The question put to him was: "From your intimate acquaintance with literary men, when you were

in India, what is your impression of the opinion that they formed of that neglect of the languages of India, which you say has been manifested?" His answer was, "Upon the determination to abolish the stipends, and the proposal to appropriate all the funds to English education, there was a petition from the Mahomedans of Calcutta, signed by about 8,000 people, including all the most respectable Maulavis and native gentlemen of that city. After objecting to it upon general principles, they said that the evident object of the Government was the conversion of the Natives ; that they encouraged English exclusively, and discouraged Mahomedan literature."—Syed Mahmood: *A History of English Education in India.* (1781-93), pp. 53-54.

When barely in my teens I often found the late Nawab Abdul Latiff at public meetings. He had more friends amongst the Hindus than amongst his own co-religionists. In Hindu joint-stock family disputes on the partition of ancestral property, the Nawab was often in demand to act as an arbitrator. In him no trace of communalism could be discerned. He even anticipated the late Sir Syed Ahmad in the recognition of the stern fact that if the Moslems were not to lag behind in the race with the Hindus, the former must shake off their age-long tradition of nourishing the past and assuming an air of petulance. In his evidence before the Education Commission appointed by Lord Ripon, the Nawab "regrets that this condition—the decadence of the Muhammadan community—is unwisely attributed solely to the action of the British Government and not to acts of omission and commission on the part of Muhammadans themselves, and to a great extent to causes beyond the control of both the Government and the Muhammadans. * * * The numerical inferiority of the Muhammadans in Government employ was not a trustworthy test ; for the memorialists had overlooked the consideration that as regards Bengal where the Muhammadans are most numerous, the mass of the population consists of cultivators among some millions of Brahmins and Kayasthas who from time immemorial have enjoyed a superior system of education and in consequence a passport to public offices."

"Special encouragement to any class is an evil, and it will be a sore reproach to Musalmans if the pride they have shown in other matters does not stir them up to a course of honourable activity ; to a determination that whatever their backwardness in the past, they will not suffer themselves to be outstripped in the future ; to a conviction that self-help and self-sacrifice are at once nobler principles of conduct and surer paths to worldly success than sectarian reserve or the hope of exceptional indulgence."—*Report of the Education Commission of* 1882-83.

Sir John Strachey in his *India* has made the following pertinent remarks on the subject :

"The success of the measures for the promotion of higher education has been more marked among the Hindus than among the Mohammedans. In many parts of India, Mohammedans, especially those of the upper classes, have always been disinclined to accept the education offered in our schools and colleges, and frequent complaint has been made that they are consequently unable to compete upon equal terms with Hindus for employment under Government. Feelings of religious intolerance sometimes tend to make the Mohammedans refuse to admit the necessity of western knowledge, but there are other reasons which affect them."

The Government of Bengal have pursued systematically an extremely retrograde policy for the educational uplift of the Moslems. Whatever funds are available have been spent for Muktabs[1] and Madrassas, where the training imparted is calculated to keep out modern ideas from the mind of Moslem boys and perpetuate and even widen the cleavage between the two communities.

"If it had been intended to keep the British nation in ignorance of real knowledge the Baconian philosophy would not have been allowed to displace the system of the schoolmen, which was the best calculated to perpetuate ignorance. In the same manner the Sangscrit system would be the best calculated

[1] Muktabs are primary schools on an Islamic basis intended for Moslem scholars.

to keep this country in darkness, if such had been the policy of the British Legislature"—thus exclaimed the great Hindu Reformer in 1823; to-day we find, however, that the British rulers have entered into an unhallowed alliance with the reactionaries to perpetuate mediævalism among the rising Moslem boys and youths. Thus the Government of Bengal spends over sixteen lakhs of rupees every year specially for Muslim education, in addition to other means adopted by it for the promotion of Muhammadan education.[2]

II—Educated Moslems and Madrassas.

Educated Moslems themselves, however, are dead against Madrassas. Some seven years ago a conference of educated and cultured Moslems was held at Dacca, at which the main subject of discussion was the language and literature of the Bengali Moslems and the causes which have contributed towards their backwardness. The proceedings were conducted in chaste Bengali and I subjoin below a few extracts therefrom (rendered into English):

Professor A. F. Rahman, M.A. (Oxon.), Chairman, Reception Committee, now Vice-Chancellor, Dacca University, observed in the course of his address:

"What is the mother-tongue of the Bengali Moslems? . . . It is evident our language is the language of our mother-land. . . . It is a historical fact that the independent Moslem Sultans of Bengal were the great patrons of Bengali language; it is due to their encouragement that modern Bengali has

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[2] *Government Expenditure on Moslem Education (1931-31).*

For Madrassas	Rs.	5,30,053
,, Muktabs	,,	11,07,578
Islamia College	,,	31,191
Total ...	Rs.	16,68,822

Compare it with the Government expenditure on Sanskrit education.

Sanskrit College	Rs.	65,431
Stipends to Tols	,,	16,188
Grant to 2,004 Tols	,,	29,932
Total ...	Rs.	1,11,551

attained to the position of a literature. . . . Under Sultan Nazir Shah the Mahabharata was rendered into Bengali and the poet Vidyapati has immortalised him in his songs.

"Hossain Shah was also a patron of Bengali literature. He engaged Maladhara Basu to translate the Bhagavat Purana into Bengali. . . . . If the Moslems be only busy in bargaining with the Hindus for their demands and fail to attract the sympathy of the world of knowledge then they are doomed to lag behind."

Mr. Tussadaq Ahmed, Head Master of the local Government School, and President of the Conference remarked:

"I do not in the least hesitate to declare with all the emphasis I can command that Bengali is our mother tongue. If I do so I shall be abjuring my own mother. I trust I have not been reduced to such a degraded level. Indeed, there are Moslems, who are ashamed to acknowledge Bengali as their mother tongue . . . . . The majority of the population consists of Moslems . . . . . Can you force *Urdu* down their throats and will it be understood?

* * * * * *

In this land of ours we Hindus and Moslems have been living side by side for centuries. Both the communities are equally entitled to enrich our literature. I confess with shame, however, that while the eminent sons of Bengal have been slowly and silently creating this literature we have stood aloof, dreaming and looking towards Samarkand, Bokhara, Arab and Ispahan. In the early days of the introduction of English education, at the instigation of our short-sighted leaders we discarded English lest we might be converted into Kaffirs."

Mamtajjuddin Ahmed speaking at the above Conference observed:

"According to the plan sketched out by me the first step towards the improvement of our present educational system should be to discard the *foreign tongues*—Arabic, Persian and Urdu. The old Madrassas should be abolished and we should follow in the wake of the Hindus."

Mr. Abul Hossain expresses his opinion on "the educational problem of the Bengali Moslems", thus:

"In vain do we search for the contributions of the Moslems in modern Philosophy and Science . . . . . Is it not a matter of shame? The Moslem was once the harbinger of philosophy, art and science. To-day his descendant is enveloped in dark-

ness. Crozier in his *Progress and Civilisation* thus accounts for this degradation.

'Islam did open up an outlet for social aspect of human thought and aspiration but soon its secret structure began to reveal itself and was found to be incapable of expansion, devoid of sympathy and fatal to material and intellectual advancement. The Koran professed to be not only a spiritual revelation but a scientific treatise ; to close not only the book of inspiration but the book of knowledge. It accordingly discouraged all attempts of man to discover the order of the world and thereby to improve his condition ; while its central doctrine led him to repose indolently on the decrees of an inexorable fate. The consequence was under this belief human mind stagnated ; as we see at this hour in those nations that are deeply imbued with its spirit, progress, civilization and morality lie rotting together'.

"Raja Ram Mohun Roy was the first not only to raise his protest against the foundation of the Sanskrit College but also to plead for English education and western sciences.

"In our Madrassas we are resuscitating the teaching of Arabic, which means that the Muslim community will lag behind in the acquisition of modern ideas, that a knowledge of Arabic is inimical to our progress and does not equip us to meet the modern requirements, for, the struggle for existence has yet to be brought home to our co-religionists. The kind of education which does not improve the mind is simply suicidal to our community. Those who simply turn their eyes towards the past and forget the present cannot have their intellect emancipated. . . . . The teaching imparted in our Madrassas ignores the progress of the modern world in philosophy, history, arts and sciences. . . . Unless one can keep pace with up-to-date progress, he is doomed. The instructions imparted in these antiquated institutions not only does not expand the mind but narrows it and holds out a premium to bigotry."

We thus find that men of culture like Professor Rahman, Messrs. Abul Hossain, M. Ahmed, etc., are dead against the Madrassas and Muktabs and yet the vast sums of money which the Government earmarks for Moslem education alone are

for perpetuating ignorance and mediævalism. Verily, our enlightened rulers have entered into an unholy alliance with obscurantists and messengers of darkness ; evidently the spread of western education is disliked and discouraged because it would open the eyes of the hopelessly backward Moslem community.

Yet another protest against the perpetuation of mediævalism by a Moslem leader.

"They have abolished the seventy year old Dar-ul-funun or University of Istanbul. The Istanbul University will be thoroughly recast along modern lines and another new National University will be established at Angora. The new Minister of Education of the Turkish Republic, Dr. Rashid Galip Bey, is a man of vision and has the courage of conviction. An Education Commission has been set up, which will guide the development of University, Secondary and Primary Education in Turkey along modern lines. In the new Universities there will be all the useful faculties in arts and sciences as well as in Fine Arts, Turcology and Islamic studies. The Faculty of Theology has been replaced by that of Islamic studies which will have a wider range and retain for Istanbul and Angora the possibilities of being true centres of Islamic knowledge and culture. A very notable reform is the establishment of a Bureau of Translation whose duty it will be to translate into new Turkish the works of world culture and literature as well as the best books of modern European learning. The Catholic outlook of the Turkish reformers is brought out into greater prominence when we learn that the masterpieces of all the great nations of the East and West, the Vedic literature of the Hindus, the Chinese philosophical works, the books of ancient Egypt, Greece and Rome, will be made available to the masses of Turkey in order that they may create new Turkish culture and science.

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"Turkey, Japan and Persia are showing how a nation, if allowed full freedom to develop according to its genius, can blaze a trail in the onward march of the humanity. . . . . To us in India, modern Turkey has a message. We are still trying to

have Gurukuls and Madrassas. Can we not see that both cannot flourish if they are antagonistically imbued? We must make a synthesis of both Islamic and Hindu culture in order to make a truly Indian culture. Those who still believe in Tanzim and Sangathan may do so; but it seems to us that they are like the ostrich trying to hide their heads in the sand. For the time being their star seems to be in the ascendant. But they should be aware that nature has some forces such as floods and inundations which arrive without notice and carry everything before them. Who can tell that such floods will not come in the shape of economic forces and wash away all Tanzims and Sangathans?"—A Moslem Contributor in the *Patrika*.

I have quoted below the strong views of Mr. Abdus Samad and other cultured Moslems on the evils of maintaining the Madrassas and Muktabs and the "segregation system in education". Let me now quote the opinion of Mr. Surendra Narayan Singha, Chairman, Murshidabad District Board:

"Separate Maktab schools lead to retrograde the progress of the Mahomedans; the standard of literature taught in the Maktabs is inferior to the standard of the Pathsalas and thus when the Mahomedan boys after passing their Maktab education come to High English Schools they cannot generally compete with the Hindu boys in some subjects specially in Vernacular. The Hindus and the Mahomedans are both the inhabitants of the same village and they ought to live as peaceful neighbours and to look upon each other as friends; but inspite of that it has been noticed that communal tension prevailed in many places. There are no doubt other reasons for such tension; but if from the infancy we by our doings and action make the boys feel that they are separate, if they are forced to read in separate schools with the idea in their minds that primary schools are for the Hindus and the Maktabs for the Mahomedans, that is to say if we allow them to cherish the tendency of communalism in their minds from their childhood, it will be strange if we do not get bitter fruit when they become adult. Therefore it appears to me that it will do good to our country and communities if the spread of these separate organisations be stopped. It will save money from which we can afford better pay for the poor teachers and also introduce other forms of education, such as, knowledge of agriculture, hygiene and home industries, which have become an urgent need for the progress of our country."—*The Teachers' Journal*, August, 1934, p. 499.

"There is no doubt about the inefficiency of the primary schools in Bengal. 76 per cent. of these schools are managed by only one teacher. These teachers have to teach 3 classes simultaneously, most of them are untrained, they cannot read and write correctly, and so how will it be possible for them to teach the students?

"The Eighth Quinquennial Review of the Progress of Education in Bengal remarks that "we destroy whatever chance of literacy there may be by a system of teaching that is equivalent to a system of neglect." Moreover the teachers are poorly paid, they have to seek for other kinds of side work to meet the bare necessity of their family and hence they have to overwork and it could not be expected anything better than neglect."—S. N. Sinha, *ibid.*

"The renovation of nations begins always at the top among the reflecting members of the State and spread outward and downward," says James, but our rulers Canute-like would try to keep back the surging tide.

I can speak with confidence when I say that Bengal has no need of Tanzims and Sangathans and that in this struggle for the emancipation of the mind, the Moslems of Bengal can always count on the support of their Hindu brethren.

III—Catholicity of the Hindus.

As we have already seen "English education was in a manner forced upon the British Government; it did not itself spontaneously originate it" (see p. 33). Whatever progress has been achieved in this respect has been mainly due to the exertions and sacrifice of the Hindus. There are at present 1,243 H. E. Schools and 60 Colleges in Bengal. It is not too much to say that barely one per cent. of these institutions owe their existence to Moslem initiative; one very outstanding feature of these schools and colleges is that their doors have always been flung wide open to every section of the people, irrespective of caste and creed, showing the catholicity of the Hindus. Some communally-minded Moslems are apt to ignore their indebtedness to the Hindus for what little progress their own community has made in English education. They conveniently forget that they have to thank themselves for their backwardness. Recently there was a discussion in the Bengal

Legislative Council on "inadequate provisions for Moslem representation in the different bodies of the University" (March, 1931). The reply given by a Hindu member, who has proved to be the worthy son of a worthy father, inasmuch as he has made the local University affairs his own, may be quoted here:

Mr. Syamaprasad Mookerjee: One of the grotesque suggestions made was that in the P.R.S., Ph.D., and D.Sc. Boards there is no Muhammadan. Surely you cannot have a Muhammadan to examine a thesis for Ph.D., or P.R.S. simply because he is a Muhammadan; he must be a competent examiner, able to examine a thesis for your highest examinations before you can offer it to him. When all this has been said, no member has referred to the interest, the practical interest taken by the Muhammadans in the University. For instance, it has not been pointed out by any member to-day as to what benefactions the Muhammadan community has made to the University of Calcutta towards the advancement of learning. I have taken this illuminating figure from the University Calendar. Since 1906 the Calcutta University has received benefactions to the extent of Rs. 50,70,000 from public spirited gentlemen including the princely benefactions which came from three distinguished countrymen of ours, Sir Tarak Nath Palit, Sir Rash Behari Ghosh and Guruprasad Sinha, Kumar of Khaira, but what is the extent of the contribution which has been made by the Muhammadans? Not more than Rs. 10,000 or Rs. 11,000 during these 24 years.

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If you want really to advance the best interests of the Muhammadan community and not the interests of particular individuals, it will not be by merely demanding that you should be given a larger number of posts, or there should be a certain number of Muhammadan clerks amongst the clerks appointed by the University or that a still larger number of Muhammadan duftries should be appointed by the University or that a larger number of persons should be appointed as members of the Senate or Syndicate. By all means capture a few more seats but at the same time do your level best to create public opinion amongst the members of your great community so that the fullest advantage may be taken by Moslem youngmen of the educational facilities which are thrown open by the University to all, irrespective of caste, creed or community. Let your claims be broad-based not on population or numerical strength but on quality and fitness.

A Moslem member who is absolutely free from any taint of communal bias also bore the following testimony to the part played by the Hindus.

Maulvi Abdus Samad: Sir, in making the imputation, the Khan Bahadur has taken up an attitude which is quite inconsistent with his views in politics and education. He belongs, I believe, to that section of the Muslim community who have been proclaiming from the house tops that the Hindus are our enemies and are, therefore, unworthy of our trust, and for that reason advocate segregation in politics and education.

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I can say, Sir, from my experience of 25 years of public life that the heart of the great Hindu community is all right. They are dying for unity and co-operation and in the larger interests of the country are prepared to be not only just but generous towards the Muslims in the settlement of communal problems, including services and other matters.

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We are always inclined to magnify their faults and shortcomings, but forget to acknowledge our indebtedness to them. We forget that the magnificent endowment of Rs. 50 lakhs, referred to by Mr. Syama-prasad Mookerjee, is intended for the benefit of all classes of students irrespective of their caste or creed. We forget that 99 per cent. of the private schools and colleges are maintained and financed by Hindu community and therein special facilities are provided for the education of the Muslim students.

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I refer, Sir, to their attitude towards the question of electorate. They know that the system of communal electorates has done them more harm than good, they know that it has alienated the sympathy of the Hindus towards the Muslims, and has brought in its train communal tension and communal riots; they know that under such a system fanaticism and conservatism has been given an opportunity to exercise a baneful influence in politics and has thereby retarded the much needed social reforms and educational progress among the Muslim community to a very large extent. They know all this and still they must have separate electorate. I have reason to believe, Sir, that the Muslim communalists are playing the game of the bureaucracy and are helping it in its policy of divide and rule. They pose as the friends of the Muslim community. God save the Muslims from their so-called friends.

Sir, the Muslims complain of their backwardness in education and other matters. Backward they are, but pray, who is responsible for

this? Sir, the Muslims of India, like the Jews of the old, are labouring under a mistaken notion that they are the chosen people of God and that their deliverance would come from Heaven without any effort or sacrifice on their part. This is a sad delusion. God never helps those who do not know how to help themselves. We fail to move with the time, we fail to understand the real teaching of the Great Prophet of Arabia; but instead we stick to mere dogmas and formalities which retard human progress. "Seek knowledge from the cradle to the grave", "seek knowledge even if you get it in China", "the acquisition of knowledge is equally compulsory to men and women" are a few of the sayings of the Great Prophet. The knowledge at one time was interpreted as religious knowledge to be acquired through Arabic and this is the reason why the Muslims took to English education at least 50 years later than the other communities. Now, though their idea of knowledge has changed, the fascination of Arabic, Persian and Urdu still remains. A Bengali Muslim student must learn all these foreign tongues besides English and how can he be expected to compete with the Hindu students? Sir, Bengal contains about one-third of the total Muslim population of India. They speak the same language with the Hindus of Bengal and their culture, manners, habits and mode of living are more akin to the Hindus than to the Muslims of Western India. But poor Muslims of Bengal! Their educational policy is entrusted to and shaped by persons who have not only no touch with the vast Muslim population of Bengal but whose cultural affinity is more akin to Muslims of Western India than to Muslims of Bengal; the result has been disastrous. The system of education prevailing in Maktabs and Madrasahs is against their taste and genius, but still they must submit to it. The system of segregation in education has been strongly criticised in the Hartog Committee Report and also in the annual Education Administration Reports of Bengal but to no effect. Then take the case of female education. The same spirit of conservatism, which stood in the way of the education of the Muslim boys, stands now in the way of the education of Muslim girls. Sir, *purdah* and female education cannot go together. If the Muslim leaders are really anxious to educate the Muslim girls, they must take steps to relax the rigidity of the *purdah*. But this all-important social reform they do not venture to initiate for fear of offending the Mullas whose support, under the present system, plays a very important part at the time of Council elections. Sir, the laws of nature are everywhere the same and equally applicable to all. God has not made different laws for the Muslims. If they fail to follow these laws, they must lag behind in the race of human progress. No useful purpose would be served by accusing the Hindus of pratiality and communalism.

Sir, at this critical juncture of Indian Mussalmans, a leader of the calibre of Sir Syed Ahmad is absolutely necessary. But under the existing constitution the advent of such a leader is well-nigh impossible."

IV—Hindus and Moslems Ethnologically Identical.

But the real scientific explanation of the backwardness of the Moslem community is apt to be lost sight of as it is due to hereditary causes. There are no doubt several high families in whom culture, as also *noblesse oblige* predominates from generation to generation, as in the Nababs of Murshidabad or of Saistabad, in the Zemindar families of Karatia, Mymensingh or the Cazis of Tetulia (Khulna) etc., or converts from high caste Hindus.[4] But the very democratic character of Islam as also its absolute freedom from the curse of untouchability (cf. Vol. I. p. 502) has led to the dilution by intermarriage of the original Mogul, Pathan or Turcoman blood coursing in the veins of the aristocratic families. "Scratch a Bengali Moslem and you will find in him a Hindu", once exclaimed an educated young Moslem ; in fact 99 per cent. of the Moslem population of Bengal are practically descendants of Hindu converts.[5] Hence linguistically and ethnologically

[4] Maulana Akram Khan, a staunch nationalist, claims as his ancestors Kulin Brahmins.

Cf. also : This chief [Isha Khan] was the grandson of Kalidas Gozdani, a Hindu, who, it is said, delighted in religious controversies, and having been worsted in argument by a learned Mussulman, acknowledged his defeat and embraced the faith of Islam.—*The Romance of an Eastern Capital* by Bradley-Birt.

[5] Cf. H. Yusuf Ali : "Racially, 80 per cent. or 90 per cent. of the Indian Muslims belong to ethnic stocks similar to those of their Hindu brethren in the different areas of India. But the foreign element—Arab, Persian, Afghan, Turk, or Mughal—formed the governing class in the days of Muslim rule, and they created a new social atmosphere for the Muslim community as a whole. Race is not recognised in Islam as a ground of differentiation or distinction, and intermarriage among the Muslims has tended to bring some homogeneity into the Muslim social fabric, though complete homogeneity has not yet been achieved."—*The Causes of War* 1932, p. 122.

and traditionally there is absolutely no distinction between a Hindu or a Moslem. The following extracts from eminent English authorities will bear me out.

"The Mohammedans of Eastern Bengal are almost all descended from low-caste or aboriginal Hindoos who long ago embraced Islam in hope of social improvement or from hard necessity.—Sir Henry Cotton: *Indian and Home Memories.*

Again: "It has already been noted that the affinities of the Muhammadans of East Bengal seem to be with the Pods and Chandals and those of North Bengal with the Rájbansis and Koches.

"The Musalman religion, with its doctrine that all men are equal in the sight of God, must necessarily have presented far greater attractions to the Chandáls and Koches, who were regarded as outcastes by the Hindus, than to the Bráhmans, Baidyas, and Káyasthas, who in the Hindu caste system enjoy a position far above their fellows. The convert to Islám could not of course expect to rank with the higher classes of Muhammadans, but he would escape from the degradation which Hinduism imposes on him; he would no longer be scorned as a social leper; the mosque would be open to him; the Mullah would perform his religious ceremonies, and, when he died, he would be accorded a decent burial.

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"It is not contended that the higher castes did not contribute their quota, but it was undoubtedly a comparatively small one".

"In Backergunge many Hindus became Musalmans after the Maghs had passed through their houses and so caused them to be outcasted.

"Although the days when Buddhism was a glowing faith had long since passed, the people of Bengal were still to a great extent Buddhistic, and when Bakhtyár Khilji conquered Bihar and massacred the Buddhist monks assembled at Odontapuri, the common people, who were already lukewarm, deprived of their priests and teachers, were easily attracted from their

old form of belief, some to Hinduism and others to the creed of Muhammad. The higher castes probably found their way back to Hinduism, while the Non-Aryan tribes who had, in all probability, never been Hindus, preferred the greater attractions of Islam.

"The dislike which educated Muhammadans have for the theory that most of the local converts in Eastern and Northern Bengal are of Chandal and Koch origin seems to be due to the influence of Hindu ideas regarding social status, according to which these tribes occupy a very degraded position."—*Census of India*, 1901, Vol. VI, Part I, by E. A. Gait.

Those who constantly din into our ears that the Hindus are more advanced in education are guilty of uttering half-truths. It is only the high caste Hindus—Baidyas, Brahmins and Kayasthas—and to some extent Telis, Sahas, Mahisyas and Namasudras that have made some progress in literacy. The rest of the Hindu population is hardly better off than the Moslems in the field of educational progress. But the Hindu population, out of the total of 50 millions approximately, amounts to 22·2 millions to which again the first three castes named above contribute only 3·3 millions; and judged by the standard of literacy in the advanced countries, even these three castes cut a sorry figure. From the *Census Report* of 1931 we find—

	Literate (age 7, and over).		Literate in English (age 7, and over).	
Brahman	... ...	45%	3454	... ... per 10,000
Baidya	... ...	63%	1736	... ... ,, ,,
Kayastha	... ...	40%	1621	... ... ,, ,,
Shaha ...	... ...	26%	662	... ... ,, ,,
Mahishya	... ...	18%	252	... ... ,, ,,
Jogi ...	... ...	14%	221	... ... ,, ,,
Namasudra	... ...	8%	120	... ... ,, ,,
Rajbangshi	... ...	5%		

Let our rulers by all means placate our Moslem brethren by showing special solicitude for their educational needs; but

what about the claims of the overwhelming majority of the Hindus? By all means, lift the veil of ignorance from the Moslems, but surely justice and statesmanship demand also that this should be done for the backward classes among the Hindus.

V—PRIMARY EDUCATION—THE ONLY REMEDY.

Progress and advancement of Bengal require that both the communities should march hand in hand. But the one thing needful, namely compulsory primary education by which both would be equally benefited, our rulers fight shy of.

Mr. Abdul Karim writes very thoughtfully on this point:—

"In all countries primary education has a greater importance than higher education. In India, where the upper and middle classes are numerically insignificant, its importance is far greater than elsewhere. The comparative backwardness of India in almost every sphere of human activity may be traced to her illiteracy. It is because the masses are illiterate that they are swayed by superstition and prejudice, know little of sanitation and hygiene and are carried off by thousands every year by cholera, malaria and other preventible diseases, have to depend upon the freaks of nature for the success or failure of their crops, fall victims to the mischievous machinations of political self-seekers and religious fanatics, who exploit them whenever it suits their purpose. Unless and until illiteracy is wiped out from the land, there can be little progress, social, economic or political. It is education, and nothing but education, that can remove social evils, sanitary troubles and economic distress from the country, and can awaken political consciousness and create social solidarity in the people. Self-government without literacy would be nothing but a farce, and might possibly be a tragedy.

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"The responsibility of a civilised government in making the people literate cannot be over-stressed. To regard expenditure for this purpose as one of the first charges upon a country's revenues, would be certainly an act of wisdom. In this con-

nection I should not omit to mention that the indigenous and inexpensive education in vogue before, was more suited to the social and economic conditions of the people. Its replacement by an exotic system, which prefers book education to nature study, insists on reading more than on thinking, fosters an artificial taste for unnecessary things and costs much more than what poor people can afford to bear, has made education rather unpopular with the masses. I need hardly say that a thorough over-hauling of the system in order to make it natural, simple, inexpensive, modern, but true to India's genius and suited to the requirements of the masses is urgently necessary. Such a system of primary education must be made universal, free and compulsory, simultaneously with the inauguration of responsible self-government, if not before."

VI—CALCUTTA CORPORATION AND PRIMARY EDUCATION.

The following review in the Bengal Government's Quinquennial Report on Education provides an eloquent comment on the educational activities of the Government as contrasted with those of the Calcutta Corporation whose affairs are now managed by the nationalists:*

"In all directions and particularly in the sphere of primary education, unmistakable evidence is forthcoming that the quality of the work done and the results achieved do not repay the expenditure of money and effort. Better trained and better paid teachers are essential.

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The total expenditure on secondary education which amounted to Rs. 1,07,37,075 in 1926-27, rose in 1931-32 to Rs. 1,22,01,808 of which about 18 per cent. came from public sources, 67 per cent. from fees and 15 per cent. from other

* This has been possible because the Calcutta Corporation has got a free hand and is to a great extent independent of Government control. The rate-payers, of which the overwhelming majority are Hindus, encourage the introduction of compulsory primary education.

sources; *i.e.* 82 per cent. was contributed by the people themselves.

The number of boys' primary schools increased from 38,187 to 43,718, the rate of increase being twice as rapid as in the previous quinquennium. The total number of pupils rose from 1,398,942 to 1,682,275. The number of Moslems in the primary stage increased by 20·4 per cent. in this period.

The spread of primary education, however, is not as satisfactory as the figures would imply:[1] the wastage was very great and the number of those who read up to class IV was comparatively small: *in fact according to the census figures of 1921 and 1931 the percentage of literacy actually fell during that period.* When, however, the conditions under which such education is carried on are realised, it is hardly surprising that so little real advance has been made. The village environment and public opinion generally are not such as to encourage education and there is no immediate inducement to the attainment of literacy. On an average there is 1.5 teacher to each primary school, so that any individual attention is impossible even if the teachers are willing to give it. Most of the teachers are ill-paid and untrained and there are no counterbalancing amenities to attract them.

It is indeed time that a systematic effort was made to remove the prevailing illiteracy.

There has been a remarkable expansion of primary education in Calcutta where the Corporation has extended its scheme of free primary education and now has 146 boys' schools with 17,415 pupils. The total number of primary schools was 229 with 30,064 pupils. The expenditure rose from Rs. 3,17,262 to Rs. 11,44,075 and the Corporation has now received sanction to introduce a system of compulsory education in one ward".

[1] The increase of scholars is, however, chiefly in the primary stage and it does not necessarily lead to a proportionate increase in the number of literates, on account of the wastage from stage to stage.

VII—Bengal Primary Education Act.

"The outstanding feature of the period was the enactment in 1930 of the Bengal (Rural) Primary Education Act, which provides for the establishment of District School Boards as the central authority for primary education in each district, and affords the machinery for the eventual development of free and compulsory primary education throughout the province. For its financing the scheme depends in the main upon the imposition of a primary education cess, and it is a matter of regret that owing to the prevailing depression it has not been found possible to impose additional taxation on the rural population.[*]

"The difficulties of the college authorities were increased, when Government found itself compelled to suspend the Imperial grant of Rs. 1,29,000 on which private colleges had become accustomed to depend for the purchase and renewal of laboratory and library equipment.

"Increased rates of fees in all colleges appear to provide the only means of effecting a general improvement in college finances and in normal times would be completely justifiable, but whether at the present time such increase would impose undue hardships and result in decreased roll strength, thus defeating the object in view, is a matter that requires consideration."—*Eighth Quinquennial Report on the Progress of Education in Bengal.*

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[*] In other words, to enjoy the luxury of primary education, you must bear additional taxation; but no retrenchment is to be effected in the costly administration. The Education Minister and his colleagues must unblushingly pocket Rs. 64,000/- per year.

APPENDIX

ECHOES OF THE CONTROVERSY BETWEEN THE ORIENTALISTS AND ANGLICISTS IN BOMBAY AND MADRAS—ENGLISH *VS.* VERNACULAR AS THE MEDIUM OF INSTRUCTION.

The echoes of the controversy between the orientalists and anglicists reached Bombay and Madras and there was a sharp difference of opinion among the two schools of thought. The relative claims of English and the Vernacular as the medium of instruction also gave rise to acrimonious discussions. We cannot do better than allow the prominent actors to speak for themselves.

MEDIUM OF INSTRUCTION.

The despatch of the Court of Directors (1841) did not express any decided opinion as to the medium of instruction and on this question the opinions of those responsible for education were divided as indeed they still are. The subject is dealt with in an interesting manner by Mr. F. Boutros in his "Report of an enquiry into the system of education likely to be generally popular and beneficial in Bihar and the Upper Provinces." The conclusions at which he arrives are very similar to those expressed by Captain Candy, Superintendent of the Poona Sanskrit College, in the following extract from his Report for the year 1840.

"It seems to me that too much encouragement cannot be given to the study of English, nor too much value put upon it in its proper place and connection in a plan for the intellectual and moral improvement of India. This place I conceive to be that of supplying ideas and the matter of instruction, not that of being the medium of instruction. The medium through which the mass of the population must be instructed I humbly conceive must be their Vernacular tongues, and neither English nor Sanskrit. Knowledge must be drawn from the stores of the English language, the Vernacular must be employed as the media of communicating it."

EXTRACT FROM THE MINUTE BY SIR E. PERRY (1847).

Colonel Jervis, on the contrary, thinks that a great deal too much attention is paid to English education, that the chief object of our exertions should be to produce a vernacular literature.

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Colonel Jervis seems to think that a vernacular literature, and men of genius, can be raised to order. I, on the other hand, conceive that Government is exceedingly impotent in these matters, that all that statesmen can do, is to watch carefully the indications of the phenomena which the thoughts, habits, and dispositions of the people evolve in their daily growth and then to mould them to the best of their ability. But if any phenomenon connected with education presents itself in a more marked form than another, during the experience of the last 25 years, it is this that the tendency and desire of the Natives throughout India is to acquire a knowledge of the English language.

MINUTE BY JUGGANATH SUNKER SETT (1847).

I am persuaded that the Vernacular languages possess advantages superior to English, as the medium of communicating useful knowledge to the people of Western India. It cannot be denied that they must have less difficulty in understanding whatever is communicated to them in their own language, than in a foreign tongue. When a native is inclined to prosecute the study of English, his progress is more rapid, and his usefulness doubled, provided he be first well-grounded in his own language. I say his usefulness will be increased, because it is only by this preparation that any knowledge he may have required can be imparted by him to his countrymen through the medium of the Vernacular language. It is in my humble opinion an impossibility to teach the great mass of the people a language, such as English, so widely different from their own. If our object is to diffuse knowledge and improve the minds of the natives of India as a people, it is my opinion that it must be done by imparting that knowledge to them in their own language.

MINUTE BY COLONEL JERVIS (1847).

Surely it must be admitted that general instruction cannot be afforded, except through the medium of a language with which the mind is familiar; and therefore the consistent result of the views above mentioned, which would constitute English the essential medium for the intellectual improvement of the Natives of India, startling though it must appear to the commonest sense, is to withhold all education from the Native population of this country, until the English language is so familiar to them, that each individual can think and reason in that tongue, to the supercession necessarily of his own dialect: and moreover, strange to say, the idea of making English the sole language of our Indian subjects has been seriously entertained and propounded. It is unnecessary to enlarge upon the chimerical nature, to say the least, of such extreme view; but the conclusion appears incontrovertible,

that in proportion as we confine education to the channel of the English language, so will the fruits be restricted to a number of scribes and inferior Agents for Public and Private Offices, and a few enlightened individuals, isolated by their very superiority, from their fellow countrymen.

GOVERNMENT OF BOMBAY ON MEDIUM OF INSTRUCTION (1848).

Whether the English or Native languages should be the medium through which to convey the instruction to the people of India. With respect to this question, I am directed to observe that the Hon'ble the Governor in Council is of opinion that any one, who observes and compares the proficiency attained by the pupils in the English and Vernacular schools, cannot fail to be convinced of the superiority which the latter manifest in sound and accurate understanding of the subject of their studies. He has no hesitation in declaring his acquiescence in the view of those who give the preference to the Native languages, in so far that he considers the main efforts for the general education of the people should be exerted in the language familiar to them from infancy: at the same time he would unquestionably afford them the means of acquiring the higher branches of education in the English languages. Hitherto, the greatest attention appears to have been devoted to the study of English, and the communication of knowledge in the Vernacular seems to have been treated as of secondary moment; but before any lasting or effectual impression can be made by our teaching upon the native mind in general, or any advance towards producing better, more learned, or more moral men, the Governor in Council feels convinced that the process must be reversed, and that the Vernacular must become the medium for the diffusion of sound knowledge among the masses.

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The chief and greatest exertions should be directed to the promotion generally of education, by means of Vernacular classes and schools. Good elementary works in the Vernacular, on science, literature and morals ought to be provided; while the efforts in English should be confined to a school in each Province, and the College at the Presidency, where, moreover, the higher branches of learning should be taught also in the Vernacular tongue, as the progress of translations may enable this to be effected.

MINUTE BY SIR E. PERRY ON THE GOVERNMENT POLICY (1848).

The considerations mentioned in the earlier part of this Report and general experience in India, appear to show that the higher branches of education can only be taught effectively through the medium of the

English language, while on the other hand, the great mass of the population, who have but little time to bestow in school attendance, can derive most readily a portion of elementary knowledge by the means of Vernacular instruction.

EXTRACT FROM THE MINUTE BY J. P. WILLOUGHBY (1850).

I concur generally in the Right Hon'ble the Governor's remarks in his minute of the 9th September last; I would, however, express more decidedly that, in the opinion of Government, too much attention is at present paid to English, and too little to Vernacular instruction and that our educational funds are too unequally apportioned between these two branches of education.

VIEWS OF MR. THOMAS (MADRAS).

But about this time (1853) the pendulum action so often observable in Indian administration began to swing forward again, and the authorities of the day, among whom the Governor Sir H. Pottinger, and Mr. Thomas, then Chief Secretary to Government of Madras and also a Member of the Council of Education, were most conspicuous, began to revert to the views entertained by Sir Thomas Munro, in favour of primary education for the masses having the first claim to assistance from the State. They were of opinion that the system which had been adopted, both in Madras and in the Bengal Presidency and which contemplated the imparting of a high measure of education to the few, and exclusively through the medium of English, must fail to produce any great or general effect upon the national mind. Mr. Thomas' view deserve to be recorded even in the very brief outline that is given here. He declared that such a system was a reversal of the natural order of things, and that the attempt to educate and enlighten a nation through a foreign language, was opposed to the experience of all times and countries, and that English must ever be in this land to the masses an unknown tongue.

"A smattering of English may be acquired by a considerable number about our towns, or in immediate communication with the few English residing in India; but the people (the women as well as men) will, as a whole, only think and speak and read in their native tongues, and their general enlightenment or education must, and, I believe, can, only be attained through this channel; and a wide basis, therefore, of a solid, though limited, education, through the means of the vernacular languages, must be given to those classes which now receive education, before anything permanent will be effected.

"It is upon this broad basis alone that the superstructure of a high standard and refined education can, it appears to me, be raised; and

the superior acquirements of the few very highly educated be made to tell upon and influence society. For let us suppose that we have some tens or even scores of youths, out of a population of millions, masters of the higher sciences, well acquainted with all the beauties of Shakespeare, of Milton, and with the learning of Bacon, and with the great master-minds of Europe, and the rest of the people, not the lowest classes alone, left in their hereditary ignorance, and that ignorance, Asiatic. I cannot but think that the only result of a system which educates a few highly and leaves the rest of the population without even elementary instruction, is to render all the superior acquirement of that few (made moreover at an enormous cost to the State), barren and fruitless as to any general influence upon Society."

EXTRACT FROM THE MINUTE BY J. E. D. BETHUNE (1851).*

I have never neglected any opportunity of inculcating the importance of inducing the students of our college to cultivate also their native language; but I have addressed these exhortations to our English schools, firmly believing that it is through them only that we can expect to produce any marked improvement in the customs and ways of thinking of the inhabitants of India. I am, therefore, alarmed at the doctrine openly professed by Mr. Willoughby and concurred in by the Government of Bombay that "he ranges with those who think that our object should be to impart a moderate degree of useful knowledge to the masses throughout the Presidency, rather than that our efforts should be exclusively directed to train up a few first rate scholars in the schools at Bombay." In another passage duly following this in the same minute, he seems to consider the main purpose of our schools to be the training up of "good *Manchetdas*, good Moonsiffs, good village accountants, good police *pestells* and a host of other minor native functionaries" "for the public service." I entirely dissent from this doctrine. I believe it to be equally opposed to the sentiments entertained by the most enlightened among our predecessors who have devoted their zeal and talent to the cause of native education, and to the instructions of the Hon'ble Court. I see the reasonable grounds that there are for hoping that, by the hold which the English ideas are gradually gaining on our most advanced students, we may, in the course of another generation at farthest, have the powerful support of a numerous native party in urging us on to attack and alleviate some of the most prominent social evils of the country. The great curse of caste, infant marriages, polygamy and the enforced celibacy of widows,

* Legal Member of the Council of the Government of India and President of the Council of Education.

with all the crimes and abomination that follow in their train, are mainly supported by superstitions which melt away, like snow before fire, when brought into direct contact with European knowledge and this work is being gradually but surely done in our Bengal schools and colleges.

EXTRACTS FROM EDUCATIONAL DESPATCH OF 1854—EDUCATION OF THE MASSES ONLY POSSIBLE THROUGH THE MEDIUM OF VERNACULAR.

The despatch of the Court of Directors of 1854 has been described as "The Magna Charta of English Education in India." In his minute Lord Dalhousie declared that it contained "a scheme of education for all India, far wider and more comprehensive than the Local or the Supreme Government could ever have ventured to suggest." An immediate outcome of this despatch was the passing of the three University Acts of 1857.

* * * * * *

In some parts of India, more especially in the immediate vicinity of the presidency towns, where persons who possess a knowledge of English are preferred to others in many employments, public as well as private, a very moderate proficiency in the English language is often looked upon by those who attend school instruction as the end and object of their education rather than as a necessary step to the improvement of their general knowledge. We do not deny the value in many respects of the mere faculty of speaking and writing English, but we fear that a tendency has been created in these districts unduly to neglect the study of the vernacular language.

It is neither our aim nor desire to substitute the English language for the vernacular dialects of the country. We have always been most sensible of the importance of the use of the languages which alone are understood by the great mass of the population. These languages, and not English, have been put by us in the place of Persian in the administration of justice and in the intercourse between the officers of Government and the people. It is indispensable, therefore, that in any general system of education, the study of them should be assiduously attended to, and any acquaintance with improved European knowledge which is to be communicated to the great mass of the people—whose circumstances prevent them from acquiring a high order of education, and who cannot be expected to overcome the difficulties of a foreign language—can only be conveyed to them through one or other of those vernacular languages.

In the memorable and spirited letter of Ram Mohun Roy addressed to Lord Amherst, there is a strong plea for the teaching of European

Physical Sciences, no doubt, through the medium of English; but a century and a decade has elapsed since then; Ram Mohun himself realised that if his enlightened views were to be brought home to the majority of his countrymen, he must make use of the vernacular. Hence his denunciation of *Suttee*, his advocacy of female education and his crusade against idolatry were conducted in Bengali. Nay, he founded the periodical, *Sambadkaumudi* for his propaganda. Along with Carey and his school Ram Mohun is regarded as a founder of modern Bengali prose.

Pathetic Appeal for Mass Education.

"It would be extremely ridiculous in me to sit down to write to the Government or to you a sentence even upon the benefit of teaching the children of the peasantry of this country to read and write. I shall merely observe that the greatest difficulty the Government suffers in its endeavours to govern well, springs from the immorality and ignorance of the mass of the people, their disregard of knowledge not connected with agriculture and cattle and particularly their ignorance of the spirit, principles and system of the British Government.

"It was long ago evident to me that to commence a plan which might in time extend to a general arrangement for the instruction of a portion of the children of the peasantry, or as would be commonly called the zemindars, to imbue them with the elements of knowledge, which would excite a spirit of learning and information, was the only way of laying the foundation for the advancement of the people in moral conduct.

"The establishment of schools in cities and towns is comparatively speaking of secondary consideration—the majority of children of classes that inhabit cities and towns are educated by their parents. It is the children of zemindars, of the peasantry, of men enjoying hereditary and paternal lands in their own right, the mass of the people; thousands to one of the people that require this instruction and will benefit by it. I seek, therefore, a provision by Government for these four schools already established and reimbursement for the sums which have been laid out upon them. I propose too that a general measure should be authorised for preparing a sufficient number of boys out of the peasantry to receive instruction in the primary branches of education by teaching them to read and write the Persian and Hindee and if possible the English language. For instance, by a Census for the Western Division there is, we find, a population of 2,19,929 contained in 47,018 houses and families. In this population there are 38,115 boys below 14 years of age; about 19,053 below 7 years of age. But the class I allude to, the landowning peasantry, the zemindars as they are called, is rated at 1,20,026 souls—although there are many other cultivators—so that the

boys for education may be estimated at about 1,000 and if one in twenty-five or one in ten or twelve families be taught to read and write, that is, four in a hundred or forty in a thousand, four hundred boys would be fitted to acquire a knowledge of our principles of Government and our system, and to impart this knowledge by actual contact with two hundred and twenty thousand souls. The expense of these institutions as it must be begun, would be Rs. 175 for a hundred boys a month, or seven hundred rupees a month for four hundred boys or Rs. 8,400 a year, but if it were possible to supply masters capable of teaching on the Lancastrian principle the expenses would be much less.

"If Government will give any consideration to my proposal I can pledge myself to carry it into execution and that it be acknowledged by the people as the greatest benefit Government could confer upon them."[10]

The General Committee of Public Instructions in a letter to Government dated 29th November, 1823, animadverted upon Mr. Fraser's proposal and based their refusal of support upon the fact that it was expedient that the appropriation of any limited funds assigned for the purpose of public education should be chiefly directed to the best means of improving the education of the more respectable members of Indian Society.

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[10] From a letter by W. Fraser, Member, Board of Revenue, Delhi to the Chief Secretary to Government in the Judicial Department, Fort William—25th September, 1823.

SOCIO-ECONOMIC PROBLEMS

CHAPTER VI.

The Mentality and Psychology of the Youth of Bengal.[1]

Some 30,000 young men are reading in the colleges of Bengal. The idea uppermost in the mind of almost all our hopefuls is that on finishing his college career and taking his degree he will qualify himself for a Government post—the I. C. S., or B. C. S. dangling before his imagination—and, failing that, he thinks of joining the congested profession of law or medicine. An English youth, on the other hand, has his imagination fired when he reads the heroic exploits of a Marlborough, or a Clive, or a Wellington, or a Drake, or a Nelson, or of orators like Burke, Sheridan, Fox or Bright, or of statesmen like Chatham, Pitt and Gladstone. If he has a taste for fine arts he can aspire one day to rise to the eminence of a Reynolds, a Landseer, a Turner or a Millais. The lives of English architects, industrialists, merchant-princes and explorers no less fill him with emulation. Centuries of foreign domination have dwarfed the noble aspirations and ideals of the youth of Bengal. Take at random any story or novel of modern life. The hero is either a zemindar, a munsiff, or a deputy magistrate or a lawyer or even a 'collegian' living in a mess on the bare income of a scholarship. I am not referring to the dramas and novels in which Rajput heroism, patriotism and chivalry play a conspicuous part. The plots in these are always borrowed from incidents narrated by Todd in his *Annals of Rajasthan*. An Irish patriot has well said : "A dramatist cannot make a great play out of a little people". If the young man harbours patriotic impulses, woe to him ; he becomes a suspect and is shadowed day and night by the C. I. D. He must be prepared to pay a heavy price for it, and terrible examples confront him every day ; with his humdrum, unromantic life,

[1] What has been said in this Chapter of the youth of Bengal applies in all essentials to the youth of other provinces.

his vision narrow and outlook very circumscribed, he starts on his career with a handicap. Even the chimera he has so long pursued—the securing of a comfortable job—recedes from his horizon like the treacherous will-o'-the-wisp as soon as he leaves college. Unhappily the disillusionment comes late. He solves problems on probabilities, but forgets to apply them in his own case. The number of suitable appointments which fall vacant every year can be counted at the finger's ends and the professions are overcrowded. Yet he and his guardians, and the guardians are more to blame, will take no heed or warning. The students go on swelling the rank of the unemployed, while all our trade, both internal and external, commerce and industry, are slipping into the hands of Europeans and non-Bengalis. It is a terrible loss, nay, a catastrophe—this wastage of the energies of a people.

I—Danger of Modern System of Education.

I have recently come across a remarkable confirmation of my viewpoint in the writings of an eminent Frenchman, M. Le Bon, who has made a psychological study of this problem. It is so very pertinent to the subject matter of this chapter that I need not make any apology for quoting the passage *in extenso*. Says this author, commenting on the French system of education :—

> The primary danger of this system of education—very properly qualified as Latin—consists in the fact that it is based on the fundamental psychological error that the intelligence is developed by the learning by heart of text books. Adopting this view, the endeavour has been made to enforce a knowledge of as many hand-books as possible. From the primary schools till he leaves the university a young man does nothing but acquire books by heart without his judgment or personal initiative being ever called into play. Education consists for him in reciting by heart and obeying.
>
> Were this education merely useless, one might confine oneself to expressing compassion for the unhappy children * * * . But the system presents a far more serious danger. It gives those who have been submitted to it a violent dislike to the state of life in which they were born, and an intense desire to escape from it. The working man no longer wishes to remain a working man, or the peasant to continue a

peasant, while the most humble members of the middle classes admit of no possible career for their sons except that of State-paid functionaries. Instead of preparing men for life French schools solely prepare them to occupy public functions, in which success can be attained without any necessity for self-direction or the exhibition of the least glimmer of personal initiative. At the bottom of the social ladder the system creates an army of proletarians discontented with their lot and always ready to revolt, while at the summit it brings into being a frivolous bourgeoisie at once sceptical and credulous having a superstitious confidence in the State, whom it regards as a sort of Providence, but without forgetting to display towards it a ceaseless hostility, always laying its own faults to the door of the Government, and incapable of the least enterprise without the intervention of the authorities.

The State, which manufactures by dint of text-books all these persons possessing diplomas, can only utilise a small number of them, and is forced to leave the others without employment. It is obliged in consequence to resign itself to feeding the first-mentioned and to having the others as its enemies. From the top to the bottom of the social pyramid, from the humblest clerk to the professor and the prefect, the immense mass of persons boasting diplomas besiege the professions. While a business man has the greatest difficulty in finding an agent to represent him in the colonies, thousands of candidates solicit the most modest official posts. There are 20,000 school masters and mistresses without employment in the department of Seine alone, all of them persons who, disdaining the fields or the workshops, look to the State for their livelihood. The number of the chosen being restricted, that of the discontented is perforce immense. The latter are ready for any revolution, whoever be its chiefs and whatever the goal they aim at. The acquisition of knowledge for which no use can be found is a sure method of driving a man to revolt.—*The Crowd*, pp. 103-5.

What Le Bon wrote about French graduates and diploma-holders about 30 years ago is true of Bengal to-day—only the tragedy is ten times worse. France is a first-rate power with an extensive colonial empire ; and she herself has been the prolific mother of scientists, philosophers, poets, artists, and litterateurs. Although behind England and Germany in industrial enterprises, in sericulture, in the manufacture of wines and perfumes, and in many other fields, she holds her own and can thus absorb a large number of graduates, experts and technicians. In Bengal on the other hand, the avenues of employment

are extremely narrow ;[1] yet our young men will doggedly persist in choosing the beaten track.

The All-India Universities' Conference which recently met at Delhi bestowed serious attention on this pressing problem. In this conference, "there was general recognition of the fact that the largely increasing numbers of undergraduates, many of whom are unfitted for university teaching, present a great obstacle to the universities in providing a high standard of instruction, and also accentuate the problem of unemployment bureaus and other forms of inquiry, which, though possibly beneficial in individual cases, did not touch the main problem. One has to get at the root of the matter. Something must be done to reduce the unwieldy numbers of students presenting themselves for university education. The Conference recommended a drastic reconstruction of our school system so as to divert large numbers of boys at the pre-university stage either to occupations in life or to separate vocational institutions."

"This would not necessarily constitute a hardship. There are many students whose bent does not lie in literary studies ; there are many on whom a university education is obviously wasted. If this principle was enforced, universities would be in a position to impose higher standards of admission, while boys not proceeding on a university course would be absorbed into occupations for which they are best suited. It is estimated that of the half million and odd youths and girls in secondary schools at present, more than 50 per cent. are unnecessarily

[1] About 1,600 candidates are, it is reported, appearing for a Public Service Commission Examination. The number of vacancies is only twelve. Of these, we are told, six are offered for open competition, the rest being reserved for minority communities. The examination fees paid by these 1,600 candidates will come to a good round figure. It will not be, therefore, a bad bargain for the Government. But there is another side, which one cannot think of with equanimity. One cannot explain the number by supposing that Government service has any special lure in comparison with non-Government service. It is only because avenues of employment are so scarce that 1,600 educated young men are trying their luck for twelve vacancies.

and fruitlessly prolonging their periods of study."—*The Times of India*, March 14, 1934.

Sir Charles Grant Robertson, Principal of the University of Birmingham, drawing on forty years' experience of university life and work was convinced that "the percentage of really first class brains in a nation is not more than 5 p.c. of the whole, and the success of a university depends on securing its share of this 5 p.c. The ploughed B.A. is not a university but a civic and social problem. The B.A. who ought to have been ploughed but some how or other was not is the real problem of university education and appointment boards". If this is true of England, the appointment bureaus in India are naturally filled with dismay at the appalling nature of their task—specially when it is remembered that the education which an average student picks up in a college is of the poorest quality.[3] Yet, inspite of this gloomy and dismal picture, our youngmen will not think seriously of any other opening in life. The following note is also relevant.

II—Uneducated Great Men: Shaw and Barrie.—The Value of College Life.

"As a profoundly uneducated man, a municipal secondary school product, I have long been painfully aware of the deep social gulf that separates peoples like me from our betters, who have been to public schools and universities," writes H. W. Seaman in *The Sunday Chronicle*.

"How I envy University men! Every time I have had to discharge one of them from a newspaper office for incompetence my inferiority complex has given me a dreadful quarter of an hour.

"Few of the millionaires I know are public school and University men, and so I am conscious of no inferiority

[3] Any one who has the patience to go through the bulky evidence appended to the Report of the Calcutta University Commission will not fail to be struck with the concensus of opinion on this subject; witness after witness lays stress on the fact that our schools and colleges have degenerated into so many cramming institutions where only the memonic faculty is exercised.

complex in their presence. Some of them actually have dialects. Very few eminent men of my acquaintance speak public school.

"As for me, having failed in all these years to discover what education is, I am content to set myself down as uneducated. So, by the way, is Lady Londonderry, who confessed the other day that having never been to a University she was 'hardly educated' at all in the ordinary sense of the word.

"But what is education? I have tried hard to find out and have applied for information to some of the teachers who, years ago, tried to drive some of their esoteric lore into the seat of my trousers.

"Bernard Shaw, for example, is uneducated, as I am. Whatever opinions I may hold of his eccentric habits (and I have aired them here from time to time) I believe that he is the greatest writer of English prose since Swift. And he is not even a D. Litt. In fact, he turned down a D. Litt. when a University offered to pin one on him. He was wise. It would have sat as badly on him as a tail".

In the pursuit of an ideal, sometimes, I am afraid, ill-directed, the Bengali youth has been known since the days of the partition of Bengal to perform prodigies of heroism; in fact, he was all along spoiling for an opportunity to wipe out the reproach of cowardice. Lads barely in their teens have cheerfully mounted the scaffold and swung from the gallows. As a protest against the harsh and inhuman codes of jail discipline he has fasted as many as sixty three days and courted slow death by inches to the admiration of the world. In famine and flood relief organisations he has borne his due share. All this is to his credit.

There is unfortunately the debit side. In matters involving social reforms he has been found wanting. He fights shy of marrying out of his own caste and hesitates in levelling down the artificial barriers and inequalities interposed between the thousand and one sects and sub-sects in the Hindu social hierarchy. In this respect the Chinese student has an immense

advantage over him. All authorities agree in asserting that China is the least caste-ridden country in the world and untouchability has been unknown there for the last three thousand years. Hence the student in China can mix on equal terms with his teeming millions of brethren in the villages; on the other hand, the aloofness and isolation of the Bengali youth from the masses is the most distressing feature in his character.

III—The Youth Movement in China.

I give below some extracts from the writings of Tsi C. Wang (*The Youth Movement in China*) to indicate what the student population is doing for the Chinese masses.

"Students of colleges and secondary schools have maintained schools for illiterates all over the nation.

"During the summer vacation, the students return to their native villages, towns, and cities to open free schools, principally for children, but at the same time talking to adult audiences. They usually turn temples into schools and temple-yards into playgrounds. And again, they help the schools in their respective localities as voluntary teachers in music, games, etc."

"Since the Student Movement", wrote Lo Cia-lung, "the people awakened as if from a dream, realizing that the old ways are no longer suitable to the new conditions, and they all look to the new ways which come with *youth*. Previous to the student movement, those engaged in the Literary Revolution, and the Thought Revolution were merely those connected with *The New Youth* and *The Renaissance, The Weekly Review,* and a few dailies. But after the student movement, about 400 kinds of periodicals were published. Although their contents vary, they show their general willingness to take part in the various contemporary movements. Before the student movement, the vernacular language was used by only a few, but since the student movement, not only have most of the newspapers used the vernacular writing, but the national educational organizations have been greatly in-

fluenced . . . This shows the dynamic power of students . . . their capacity for free expression . . . the manifestation of their individuality."

Again: "As early as the summer of 1919, the students scattered all over China peddling goods and as Dr. John Dewey said, 'Speaking, speaking, speaking'. During the academic year, they addressed the people in the neighbourhood of their schools, and during the summer vacation, dispersed to the towns and villages and gave lectures whenever possible. It has become a duty of their school work to go out voluntarily to give lectures to the common people in cities, towns, and villages. They are usually organised in different schools into what they call 'Popular Lecturing Teams', made up, usually of college and high school students. They are of different types: some are accompanied by music (vocal or instrumental), some do just pure lecturing, and others give student-plays. The teams usually go out on week-ends, or in the evenings and on holidays. The subjects of their lectures range from 'Personal Hygiene' and 'Science' to 'International Problems'. Students of colleges and secondary schools have maintained schools for illiterates all over the country."

Another authority writes:—

"In 1921, when I visited government and private schools in ten of the provinces, scarcely a school was found, even among those of an elementary character, that was not conducting a free school for poor children, taught and supported either by teachers or pupils or both."

"Experiments were begun with the idea of producing one hundred per cent. literacy, in this limited sense, in certain communities within five years' time".—Monroe: *China*, p. 284.

Bertrand Russell, who was for some time Professor of Philosophy in the University of Peking, in his authoritative book, *The Problem of China*, quotes Mr. Tyau from his chapter "On the Student Movement" as follows:—

"The students then directed their energies to the enlightenment of their less educated brothers and sisters. For instance, by issuing publications, by popular lectures showing them the real situation,

internally as well as externally, but especially by establishing free schools and maintaining them out of their own funds. No praise can be too high for such self-sacrifice, for the students generally also teach in these schools. The scheme is endorsed everywhere with the greatest enthusiasm and in Peking alone it is estimated that fifty thousand children 'are benefited by such education' " (p. 223).

While correcting proofs, I come across the following account by Reuter:

Mass Education in China.

"The system of mass education is being revolutionized in China.

"Because of the lack of teachers, specially women teachers, and of other problems caused by tradition, students are being made into teachers, and the move has met with unprecedented success.

"The students attend school during the day, and go out at night to teach, instructing both young and old. Some of the great difficulties of Chinese education have been solved by this method.

"The 'child-teachers' have been most effective among women. In one family, for instance, a six-year-old grandson taught his 60-year-old grandmother how to read in a short space of time.

"There are 27 child-teaching centres in China, several of which have been operating successfully near Shanghai"—19 Oct., 1934.

IV—Why the Bengalis Fail?

In congenial work lies the real sauce of life. Our young men disappointed in not finding a job as soon as they come out of the college, cannot take to any occupation, but simply move away, lose all interest in life and becoming victims of semi-starvation, fall easy prey to diseases and are prematurely cut off; if, however, like the Chinese students they could catch sustained enthusiasm for serving the motherland, they would find their lives amply worth living.

In Bengal we have five to six months' holidays (including the summer vacation) in the schools and colleges and full seven months' in the post-graduate classes. The total number of school and college-going pupils in Bengal comes up to not less than 300,000 ; if they could follow in the wake of young China a miraculous transformation could be brought about as regards removal of illiteracy. Unfortunately, all the precious time of vacation is wasted by our students in idle-talks and gossips, card-playing and an extra dose of sleep during midday. I do not mean that the fault lies entirely with our students. It is to be regretted that there have not sprung amongst us leaders of outstanding personality who could undertake to guide our students in the path beneficial to themselves and to the community. The very emotional side of the Bengali stands in the way of his taking up sustained work requiring life-long devotion to a cause. "The characteristic of heroism", as Emerson has it, "is its persistency. All men have wandering impulses, fits and starts of generosity. But when you have chosen your part, abide by it and do not weakly try to reconcile yourself with the world." The Bengali is lacking in patience ; he is always after quick results—he is for reaping without sowing. Sensationalism appeals to him more than steady, silent work away from the public gaze. Ten thousand young men will be ready to enter jail after a fiery impassioned speech by a popular leader, but when it comes to real constructive work in a remote village there is little or no response. The silent life-long service, which may not produce any immediate palpable result, has no attraction for our youth because he has been fed too often on froth and foam, sound and fury, which signify nothing. Whatever he does he must do in the glare of the public and in the lime-light of vulgar applause. He is for the attainment of his end by "direct action" and quick methods ; hence sustained work requiring life-long devotion and unflagging zeal does not appeal to him. His efforts are spasmodic ; he can only work by fits and starts. His work, therefore, is productive of no permanent benefit. Hence his failure all

along the line. He should always remember the words of the poet:—

Prune thou thy words, thy thoughts control,
That o'er thee swell and throng;
They will condense within thy soul,
And change to purpose strong.
But he who lets his feelings run,
In soft luxurious flow,
Shrinks when hard service must be done
And faints at every woe.

Our brilliant graduates almost without exception hanker after service. It is because such service satisfies the mean objective "safety first". But an Indian Government servant, be he a member of the Viceroy's Executive Council or a *chaprasi* (a court messenger) is after all a miserable and may even be a despicable creature. He has to dance to the tune of his master; blunt or sell his conscience for a mess of pottage. He is at best a limb of the bureaucracy and must carry out the policy shaped at Whitehall. Like a gramophone he repeats his "Master's Voice". He learns that to look at things from the Indian point of view is anathema. In a dependency the interests of the rulers and the ruled are as the poles asunder. He realises at every step that he is an instrument through whose agency measures calculated to do harm to his country have to be hatched, carried out or enforced. He is daily brought under demoralising influences. The land-holder or the merchant who otherwise might have maintained an independent attitude is also drawn into the spider's parlour. Allurements are dangled before his eyes. As Terence MacSwiney says:

"The moral plague that eats up a people whose independence is lost is more calamitous than any physical rending of limb from limb. The body is a passing phase, the spirit is immortal; and the degradation of that immortal part of man is the great tragedy of life. Consider all the mean things and debasing tendencies that wither up a people in a state of slavery. There are the bribes of those in power to maintain their ascendency, the barter of every principle by timeservers, the corruption of public life and the apathy of private life; the hard struggle

of those of high ideals, the conflict with all ignoble practices, the wearing down of patience, and in the end the quiet abandoning of the flag once bravely flourished; then the increased numbers of the apathetic, and the general gloom, depression and despair—everywhere a land of decaying. Viciousness, meanness, cowardice, intolerance, every bad thing arises like a weed in the night and blights the land where freedom is dead; and the aspect of that land and the soul of that people become spectacles of disgust, revolting and terrible, terrible for high things degraded and the great destinies imperilled. It would be less terrible if an earthquake split the land in two, and sank it into the ocean."

The Bengali youth is an odd blend of incongruities. The Chinese student is engaged during vacation in social work in the villages, peddles goods and thereby earns his livelihood for the time being, but our youngman, conscious of his so-called social status, fights shy of any kind of labour which smacks of loss of dignity. He cannot stand on his own legs ; for a single day's meal he has to depend on his guardian or some kindly neighbour.

I have been watching the proceedings of some of the conferences of our youth movements. A leader with pungent political views is generally elected president. Our youngmen listen to his fiery speech with rounds of applause. Resolutions on abolition of untouchability and dowry on the occasion of marriage, uplifting of the masses, and what not, are unanimously passed and when they disperse they forget all about them.[4] It never occurs to them that mere paper resolutions can never bring about our salvation. It is all words and catch phrases. The college student would non-co-operate and cease attending lectures, all the same he has an eye on the percentage in his class-roll for he is hankering after his degree as also com-

[4] As if in mockery of the above resolutions, the very newspaper in which the account of the conference appears in glowing terms, inserts in its "matrimonial columns" such like advertisements taken at random.

"Wanted Non-Sandilya Barendra Brahmin fair-complexioned educated bride for double M.Sc., settled in life, young bachelor (Srotriyai)."

"Wanted a Bangaj bride for a Ghosh M.B., proceeding England for M.R.C.S. degree. Respectable parentage having property, houses in district headquarter. Help to foreign studies needed."

petitive examinations and is keen for the I. C. S. and B. C. S. The very idea of independent means of livelihood is foreign or repugnant to his nature. His career ends in dismal failure like Hamlet in a mood of agony, vacillation and despair.

No atmosphere could be more demoralising than that in which our boys grow to maturity. They find society permeated through and through with fraud, hypocrisy and dishonesty. In most of the lower ranks of such public services, as the railways, police, or judiciary, or excise, persons who do not accept bribes are honourable exceptions. Food meant for poor patients in hospitals or helpless prisoners in jail is often diverted to satisfy private greed. It is not even uncommon to find highly paid officers being involved in such shady transactions. Instances of hypocrisy in every-day life are extremely common. Ice, soda water, or aerated beverages in general are as a rule prepared and served by "low-caste" people or Moslems. Our educated men have no hesitation in taking such drinks, but the moment a glass of water is offered by a member of the so-called "untouchable class" at a social function they are horrified. The cry is raised that the time-honoured caste-system is in danger. The college-bred youth surrenders at discretion. Restaurants are springing up in the Hindu quarters of Calcutta like mushrooms and it is well known that the dishes are often prepared by Moslems or *Magh* cooks. They are frequented and patronised by our young hopefuls; but when they go home to their native villages, they fight shy of such sacrilege for fear of offending the susceptibilities of their elders. The youth with his academic laurels, with his Mill, Spencer, Bernard Shaw[5] on his lips dare not marry beyond his prescribed rank in the social hierarchy; yet he has no hesitation in talking glibly of Bertrand Russell's "Social

[5] Bernard Shaw out on a tour in the East recently refused to land in Bombay, when his ship lay off the harbour. When interviewed by a Press representative, he said that he knew all about the Indian intelligentsia who could quote seventeen volumes of Herbert Spencer from memory. Obviously it is his incisive way of saying that rationalism of the West dwells in the memory of Indian men and women and not in their action.

Reconstruction", "Syndicalism", or "Socialism". Our educated countrymen, or at least a good many of them, have had their credulity easily imposed on. Two rival advertisements are appearing in the nationalist papers conducted in English throughout India for more than a year in which the virtues of amulets and charms are extolled. The wearers thereof are assured of every blessing on earth!

Even our "educated" people are slaves of tradition and convention and dare not deviate an inch from the beaten track. Dr. R. P. Paranjpye, Vice-Chancellor, Lucknow University, in a recent lecture (Oct. 2, 1934) observed:

"It was curious to notc that reason played a negligible factor in guiding the actions of a vast majority of people. In spite of their education they were as gullible as the most ignorant villagers and chose to be driven blindly in the fields of politics, religion and other matters by self-styled leaders who claimed to have derived inspirations from mysterious sources."

Apropos of the present superstitious mentality of a large section of educated Indians, Dr. Paranjpye read two articles entitled "The Guru Craze" and "Modern Deification".

Referring to what he described as "The Guru Craze" Dr. Paranjpye said:

"To careful observers of the intellectual life of a nation it is no new thing to be told that there are ebbs and flows in the hold that several philosophies have upon the educated part of the community. Some forty years ago Mill was a name to conjure with and all educated people were followers of Mill, Spencer and others of the rationalistic school. After this exaggerated worship of Mill, or rather in consequence of it, has come the reaction, when it is the prevailing fashion to sneer at the exponent of a mere dry philosophy, and his followers. The cold light of reason, so runs the fashionable cant of the day, is not sufficient to satisfy the wants of the inner soul of man.

Growth of Occultism.

"I do not, however, propose to discuss the prevailing intellectual atmosphere of the West. I wish to refer only to a backwash of the same movement as seen in India, viz., the growing tendency towards occultism among the educated classes of India. The increasing following of such cults as Theosophy, Vedantism and what for want of a better word, we may call Vivekanandism, is due to the same intellectual

or 'quasi'-intellectual movement. But in these instances at any rate there is an avowed appeal to the intellect; but close followers of Indian thought have recently observed a far more vicious tendency among the educated people of Western India at least; I mean the absolute abdication of all reasoning faculty which consists in adopting a 'guru' in the religious sense of the word. A 'guru' is a person whose every word is a law to his disciple and whose command is to be obeyed and not argued with however absurd it may be."

What Dr. Paranjpye speaks of the educated people of Western India applies equally to whole of India.

Demoralising influences in the wider sphere of public and political life have in recent years become extremely powerful. The more communal a public man is in his outlook, the better are his chances for basking in the sunshine of Government favour. It is not uncommon to find one brother accepting a big position under Government, drawing princely emoluments and having had titles showered upon him, while the other courting poverty and jail, but all the same paving the way for the future emancipation of the country. The parallel of Man Singh *vs.* Rana Pratap, or that of Arminius *vs.* his brother may be quoted here:

"Arminius had collected his army on the other side of the river; and a scene occurred, which is powerfully told by Tacitus, and which is the subject of a beautiful poem by Praed. It has been already mentioned that the brother of Arminius, like himself, had been trained up, while young, to serve in the Roman armies; but, unlike Arminius, he not only refused to quit the Roman service for that of his country, but fought against his country with the legions of Germanicus. He had assumed the Roman name of Flavius, and had gained considerable distinction in the Roman service, in which he had lost an eye from a wound in battle. When the Roman outposts approached the river Weser, Arminius called out to them from the opposite bank, and expressed a wish to see his brother. Flavius stepped forward, and Arminius ordered his own followers to retire, and requested that the archers should be removed from the Roman bank of the river. This was done: and the brothers, who apparently had not seen each other for some years, began a conversation from the opposite sides of the stream, in which Arminius questioned his brother respecting the loss of his eye, and in what battle it had been lost, and what reward he had received for his wound. Flavius told him how the eye was destroyed, and mentioned the increased pay that he had on account of its loss, and showed the

collar and other military decorations that had been given him. Arminius mocked at these as badges of slavery; and then each began to try to win the other over; Flavius, boasting the power of Rome, and her generosity to the submissive; Arminius appealing to him in the name of their country's gods, of the mother that had borne them, and by the holy names of fatherland and freedom, not to prefer being the betrayer to being the champion of his country. They soon proceeded to mutual taunts and menaces, and Flavius called aloud for his horse and his arms, that he might dash across the river and attack his brother; nor would he have been checked from doing so, had not the Roman General, Stertinius, run up to him, and forcibly detained him. Arminius stood on the other bank, threatening the renegade, and defying him to battle.

* * * * * *

It makes us reflect on the desolate position of Arminius, with his wife and child captives in the enemy's hands, and with his brother a renegade in arms against him".—Creasy: *The Fifteen Decisive Battles of the World.*

The great Irish patriot further observes: "It is the duty of the rightful power to develop the best in its subjects, it is the practice of the usurping power to develop the basest. Our history affords many examples. When our rulers visit Ireland they bestow favours and titles on the supporters of their regime but it is always seen that the greatest favours and highest titles are not for the honest adherents of their power—but for him who has betrayed the national cause that he entered the public life to support. Observe, the men who might be respected are passed over for him who ought to be despised. In the corrupt politician there was surely a better nature. A free state would have encouraged and developed it. The usurping state titled him for the use of his baser instincts. Such allurement must mean demoralisation. We are none of us angels, and under the best of circumstances find it hard to do worthy things; when all the temptation is to do unworthy things we are demoralised."

In India, too, similar methods are being tried and with more deadly effect. No wonder that, brought up amidst such surroundings, our youngman naturally begins to have his

moral fibre weakened. In his every day life, he compromises his conscience ; he realises what he ought to do, but he has not the courage of his convictions and fails to translate his intentions into action. Oftentimes a kind of moral paralysis overtakes him.

In spite of these adverse circumstances he who wants to play the man must rise superior to them ; difficulties no doubt beset his path but like a weary pilgrim he should march towards his goal. It is the idler and the drone who, themselves unable to do anything, scoff at the attempts of those who do not see the lion in the path and who do not give way to despondency but heroically battle against the unpropitious lot that is theirs. He must burst through the limitations. Fortunately there are silver linings in the dark clouds. Many noble souls have in recent years given up bright prospects in their career, have courted poverty and obscurity, have retired to malaria-stricken villages so that they might work among the dumb masses and uplift them. A little leaven leaveneth the mass. It may take long before any tangible results are produced but the high ideal which they have held aloft before the youth of Bengal cannot fail to produce some beneficial effect in the midst of the encircling gloom.

V—Realism *vs.* Idealism.

The miserable failure of the Bengali in business matters has already been the subject of my life-long study (Vol. I. p. 440) ; and the causes are to be sought for in the temperament of the people as also in the climate and fertility of the soil coupled with the system of permanent settlement of the land. The patriotic impulse—the enthusiasm of the Bengali—at times rises to white heat ; but it is of short duration. It flares up like the fire of straw for a moment and soon subsides. There is no sustained energy, no dogged perseverance and bull-dog tenacity in the Bengali. He wants his path clear of thorn as conformable to his indolent nature. He forgets that to achieve success it is necessary to begin low in the scale, to have patience and slowly work his way up. The Marwari and the

Topiwallas[6] do not disdain to walk into the remotest hamlets and transact business *direct* with the ryots, when it is necessary to do so, specially in jute. It is curious to note that the Zemindar or the Pattanidar or any other under-tenant in whose land jute is grown, does not like that his sons should be trained in such undignified work; but all the same would spend a mint of money on his son's "education" in Calcutta with a view to qualify him for a Government job. Often the Zemindar or the successful lawyer or the Government servant or the well-to-do tradesman would send his son to eat dinners at the Inns-of-Court or enter a British engineering college. The son would return as a barrister or as a 'qualified' engineer and there being no careers open in the over-crowded professions, would continue to be a burden on his parents. Some even return unsuccessful in winning any sort of diplomas.[7] It is simply heart-rending to think of the appalling waste of patrimony and energy in this way.

Sometimes the college-educated youth would think of entering business when he realises too late that he, or rather his guardian, made a miscalculation. He forgets that to be trained in business one has to begin early at thirteen or fifteen and be apprenticed to it in any capacity however humble and thus slowly learn the A B C of it. After receiving his schooling in the rough-and-tumble of business life, he should begin on a humble scale.

But all this is opposed to the inherent nature of the Bengali. He is highly emotional and impulsive. One of the results of the partition of Bengal agitation was the *Swadeshi Movement*. Fired by patriotic fervour the Bengali took a vow to eschew articles of foreign make as far as possible but as he never went through the probationary period, he failed miserably. The result was that the Parsis and the Gujratis of Bombay reaped a golden harvest chiefly in textiles. But the Swadeshi had its repercussion in Bombay in other ways.

[6] Lit. wearers of hat, *i.e.* Europeans.

[7] Several such cases are known to me.

"By the summer of 1907, however, a new situation had been created in India. The 'Swadeshi' movement, which on its more praiseworthy side meant the cultivation of the doctrine that the resources and the industries of India ought to be developed by the Indians themselves, had reached its height. All India was talking 'Swadeshi', and was eager to invest in 'Swadeshi' enterprises. Mr. Dorabji and Mr. Padshah, who had spent weary months in the City of London without avail, after their return conceived, in conjunction with Mr. Bilimoria, the bold idea of appealing to the people of India for the capital needed. The decision was a risky one, and many predicted failure, but it was amply justified by the result. They issued a circular, which was practically an appeal to Indians.

"Mr. Axel Sahlin, in a lecture delivered to the Staffordshire Iron and Steel Institute in 1912, has described the instantaneous response, thus:

'From early morning till late at night the Tata Offices in Bombay were besieged by an eager crowd of native investors. Old and young, rich and poor, men and women, they came, offering their mites; and, at the end of three weeks, the entire capital required for the construction requirements £1,630,000, was secured, every penny contributed by some 8,000 native Indians. And when, later, an issue of Debentures was decided upon to provide working capital, the entire issue £400,000 was subscribed for by one Indian magnate, the Maharajah Scindia of Gwalior.' "—F. R. Harris: *J. N. Tata*, p. 202.

My object in alluding to all this is to bring home to the Bengali that mere patriotic impulse or emotionalism will avail him nought. He should be prepared to go through the rough-and-tumble of life and even receive at times hard knocks in the shape of failures—for failures are the precursors of success.

VI—Culture and Money Making.

I am often told that mere money-making instinct will lead the Bengali to become the Marwari. I would first in reply to this charge quote from two eminent English writers:—

"The ordinary man's main business is to get means to

keep up the position and habits of a gentleman. . . . . The secret of the prosaic man's success, such as it is, is the simplicity with which he pursues these ends: the secret of the artistic man's failure, such as that is, is the versatility with which he strays in all directions after secondary ideals. The artist is either a poet or a scallawag: as poet, he cannot see, as the prosaic man does, that chivalry is at bottom only romantic suicide: as scallawag, he cannot see that it does not pay to spunge and beg and lie and brag and neglect his person."—Bernard Shaw: *Man and Superman.*

"The history of the world shows us that men are not to be counted by their numbers, but by the fire and vigour of their passions; by their deep sense of injury; by their memory of past glory; by their eagerness for fresh fame; by their clear and steady resolution of ceasing to live, or of achieving a particular object, which, when it is once formed, strikes off a load of manacles and chains, and gives free space to all heavenly and heroic feelings. All great and extraordinary actions come from the heart. There are seasons in human affairs when qualities, fit enough to conduct the common business of life, are feeble and useless, and when men must trust to emotion for that safety which reason at such times can never give. These are the feelings which led the Ten Thousand over the Carduchian mountains; these are the feelings by which a handful of Greeks broke in pieces the power of Persia: they have, by turns, humbled Austria, reduced Spain; and in the fens of Dutch, and in the mountains of the Swiss, defended the happiness, and revenged the oppressions of man! God calls all the passions out in their keenness and vigour, for the present safety of mankind. Anger, and revenge, and the heroic mind, and a readiness to suffer;—all the secret strength, all the invisible array of the feelings;—all that nature has reserved for the great scenes of the world. For the usual hopes, and the common aids of man, are all gone. Kings have perished, armies are subdued, nations mouldered away! Nothing remains, under God, but

those passions which have often proved the best ministers of His vengeance, and the surest protectors of the world."

"This passage of Sydney's [Sydney Smith] expresses more than any other I could have chosen out of what I know of modern literature, the roots of everything I had to learn and teach during my own life ; the earnestness with which I followed what was possible to me in science, and the passion with which I was beginning to recognize the nobleness of the arts and range of the powers of men."—Ruskin's *Autobiography*, vol. II, pp. 246—48.

Emotion or sentiment is certainly a nation's precious asset. But it is always confined to a chosen few—to a *divine* few. An entire people cannot live on emotion, otherwise it will have to "spunge and beg and lie and brag". Cromwell and Hampden did miracles but the civil war had to depend for sinews of war on the wealthy London merchants. The Bengali graduate is now too glad to accept a typist's place on a monthly pay of Rs. 30 in a Marwari firm and even that falls to the lot of one out of a hundred. He now finds a solution of his troubles in taking leave of this world—he ends by committing suicide.

The Bengali forgets that the greatest nation in industry and commerce and navigation has produced side by side the greatest poets, scientists, men of letters, philosophers, artists and engineers. So there is nothing incompatible between success in life in the ordinary sense and indulging in emotion in the same people.

It is not the college educated youth alone but the Bengalis as a people, Hindus and Moslems, have failed in the battle of life. They are yet living in a happy-go-lucky sort of way and are thus unable to compete with the sturdy non-Bengalis, who are elbowing them out of every kind of trade, internal and external. It is necessary to bring about a psychological change in our people—a new orientation in the mode of thought and activity in our national life or our economic doom cannot be averted.

The utter helplessness of the Bengali in industry is evident from the number of sugar mills started in Bihar, U. P., etc. Since the high import duty on Java sugar (167 per cent.) some 92 new mills have sprung up, but not a single Bengali concern. Two big mills have been erected in the Murshidabad and Rajshahi districts by enterprising Marwari firms ; but the Bengali is nowhere. But as Bengal is the province which consumes the largest amount of white sugar, he will put Rs. 7-12 per cwt. into the pockets of Europeans (Begg Sutherland, Andrew Yule, etc.), Marwaris, Gujratis and the Punjabis. The total amount will come up to between Rs. 3 and 4 crores. His very helplessness is exploited by the non-Bengalis. And yet he thinks, he is the apostle of Swadeshi.

Take again banking. Here too the Bengali is nowhere ; what little progress has been made in this line is mainly on the Bombay side.

The savings of the well-to-do Bengalis since the days of John Company have either been invested in "Company's" (Government) paper or placed in the custody of European banks as fixed and current deposits ; the latter often carrying no interest at all or at the most one per cent. A small fraction of his savings also finds its way into the coffers of the smaller banks which are branches of the parent organisations at Calcutta, Bombay, Lahore, etc. The only Bengali venture in this direction started during the Swadeshi movement in 1905—1907 has recently ended in a lamentable and shocking collapse, from the moral effect of which Bengal is not likely to recover within the next quarter of a century. It will thus be evident that several crores of rupees are locked up in European or non-Bengali banks, the proceeds of which, invested in paying concerns, go to fill the pockets of Europeans and non-Bengalis.

The present system of education does not help us to find a solution of the acute problem. The fact is that the University authorities have been placed in a very awkward position. They hug to themselves the time-honoured custom or tradition that every boy must have the

University hall-mark. On the one hand they have to vernacularise—on the other hand they have in view the topheavy graduate and post-graduate classes.[5] So they must come to a compromise, which in this case results in total failure of the real aim of vernacularisation. As I have pointed out, early bifurcation alone could save the situation. Let only ten per cent. of our students, *i.e.*, those who aspire to be judges, magistrates, high-officials, lawyers, professors and researchers—take to English and the rest 90 per cent. should have a thoroughgoing instruction through the medium of vernacular from the age of 6 or 7 to 13 or 14 and then be apprenticed to trade, business, commerce, etc., as in Japan. I have been crying myself hoarse over the fact that there are already ten to twenty times, nay, in some spheres hundred times, more graduates and lawyers than there is room for. Another salient feature is clean forgotten. The Government officials, doctors, lawyers, etc., are parasites, *i.e.*, they live upon the wealth produced by the peasants. They do not create it. Unfortunately, with all these stern realities staring them in the face, the guardians fondly cherish the hope that their young hopefuls—one and all—would become judges, or high Government officials, successful lawyers, or doctors. Strange delusion! This year we have the largest number of 'matriculates' and consequently the largest number of entrants for the colleges. In Madras the state of things is equally deplorable. For, I read while correcting the proofs:

Plight of Educated Unemployed—Madras Survey.

"A civic survey of the educated unemployed youths is being vigorously carried on for some time past. The survey

[5] For the B.A.: (English) Shakespeare's Plays (*e.g.*, Hamlet), Milton, Bacon, Carlyle, etc.; (Philosophy) Marvin, Stephen, James and so on. For the M.A. (English): old English literature—Beowulf, Alfred; Middle English and Elizabethan Literature—Chaucer, Geoffrey, Lyly, Marlowe, Ben Jonson. Then there are other periods of the 18th, 19th and 20th centuries. Only a few authors have been named. The list is a formidable one.

is almost complete and the report is expected to contain startling revelations about the conditions of the educated unemployed, particularly graduates. In the meanwhile, schemes are being drawn up to organise small industries and trade with small capital for bands of unemployed youths. To begin with a tailoring mart, a grocer's shop and a depot for hawking industrial products are to be run by educated youths. An appeal has been issued to the piece-goods and other merchants of the city to utilise the services of the educated unemployed youths for hawking and selling their so-called unsaleable condemned wares and goods."—*United Press*, Oct. 13, 1934.

Yet they go on manufacturing graduates *ad infinitum*.

CHAPTER VII.

Neglect of Sanitation and Irrigation—A Chapter from the Whiteman's Burden.

Malarial fever is perhaps the most important of human diseases. Though it is not often directly fatal, its wide prevalence in almost all warm climates produces in the aggregate an enormous amount of sickness and mortality. In India alone it has been officially estimated to cause a mean annual death-rate of five per thousand; that is, to kill every year on the average 1,130,000 persons—a population equal to that of a great city. This is more than the mortality of plague at its height or of cholera and dysentery combined. The total amount of sickness due to it is incalculable, but may be put by a rough estimate at between a quarter and a half the total sickness in many tropical countries. Often all the children and most of the adults are infected by it. Unlike many epidemic diseases it is not transient but remains for ever in the areas which it has once invaded. It tends to abound most in the most fertile countries, and at the season most suitable for agriculture. Very malarious places cannot be prosperous: the wealthy shun them; those who remain are too sickly for hard work; and such localities often end by being deserted by all save a few miserable inhabitants. Malaria is the greatest enemy of the explorer, the missionary, the planter, the merchant, the farmer, the soldier, the administrator, the villager and the poor; and has, I believe, profoundly modified the world's history by tending to render the whole of the tropics comparatively unsuitable for the full development of civilisation. It is essentially a political disease —one which affects the welfare of whole countries; and the prevention of it should therefore be an important branch of public administration. For the State as for the individual, health is the first object of scientific government.—Ross: *The Prevention of Malaria* (1911).

I—Malaria and the Railways.

A wave of epidemic fever of a virulent type swept over the Burdwan district (the "Burdwan Fever") between the months of July and August in 1860. It broke out again in 1861 and 1862 with redoubled vigour and crossed the Hugli and spread over the villages in and about Baraset. The places most affected were Triveni, Halisahar, Kanchrapara, Ula, etc.

The ravages were terrible. "A great number of homesteads had been deserted and there was scarcely a house in which several inmates had not been carried off". The Government of Bengal appointed a Commission in 1864 to inquire into the causes of this scourge consisting of British experts of the sacrosanct I. M. S. and a "native" gentleman of local experience. Fortunately, the choice fell upon the late Raja Digambar Mitra. The Commission laid much stress upon the notion then prevailing, namely the miasmatic effluvia, emanating from the decomposing vegetable matter as the chief contributory cause; at the same time they did not fail to record: "Remembering that the direction of the natural drainage of the villages situated along the river banks is inland, we have no difficulty in believing that it is impeded by the Railway embankments on both sides."

It was, however, reserved for the lay member (Digambar Mitra) to append to the Report two separate notes over his own signature, which have now acquired historic importance. It is amply worth while quoting some extracts here:

"Choonakhally, Bhatpara, Cossimbazar, Kalkapore, Bamunghatta, and Furreshdanga were situated on a curve of the River Hooghly, until a straight cut was made some sixty years since forming the chord of the curve, thus changing the course of the river and throwing those places inland. This engineering operation was closely followed by the breaking out of an epidemic in all those places which, in its virulence and mortality, is unparalleled by any pestilential visitation in Bengal, saving perhaps that which depopulated Gour."

"In like manner the Eastern Bengal Railway and its feeders, when the same have crossed the water-courses of villages lying on the eastern bank of the river Hooghly, and of others more inland, but situated to the west of the line, have obstructed the drainage of those places; the fall of the villages lying on the eastern bank of the Hooghly, as I have before observed, being towards the east, and consequently Chagda, Kanchrapara, Halisahar, and many others similarly situated have suffered."

"Both the East Indian and the Eastern Bengal Railways and their feeders have crossed the water-courses of villages and obstructed the drainage of these places."[1]

Digambar's theory has now been accepted as the main cause not only of the breaking out of malaria in new areas but also as aggravating the havocs of the floods.

The toll levied by malaria, kala-azar, tuberculosis and cholera is unusually heavy. In 1927 the total death from fever in Bengal amounted approximately to 800,000, out of which nearly half was claimed by malaria ; kala-azar claimed 11,855 victims ; during the last 5 years death from small-pox has been on the increase, the figure for 1928 being 59,000 in Bengal. While according to Mrs. Campbell Forrester, who has carefully studied the havoc caused by the 'white plague', "Bengal had a population of 4 crores and 65 lacs of which 8 lacs of people were dying of tuberculosis."

Not only the ravages of malaria but also the terrible calamity caused by the North Bengal flood would have been mitigated, if not altogether avoided, if the railway authorities had taken the precaution to provide sufficient outlets for the passage of water. But they were more concerned in cheapening the cost of laying down the railroads. Earthworks had been thrown across partially silted up river-beds leaving narrow culverts for the flow of water. An engineer with only an elementary knowledge of his subject would have suggested the construction of bridges in such places. But the authorities were more anxious to consult the interests of the foreign capitalists and were thus utterly regardless of future consequences. The less the expenditure the larger the dividend. The interests

[1] Bholanath Chunder : *Life of Raja Digambar Mitra*, vol. i. pp. 197-200; *ibid.*, vol. ii. p. 63. It is scarcely necessary to remind the reader that the anopheles mosquito as the carrier of the malarial germ had not as yet been suspected. Even so late as 1897 Ross writes : "The medical bigwigs there were still fast rooted in the opinion that malaria was due to marah miasma".

of millions of inhabitants in those regions were ruthlessly sacrificed[1] (*cf.* Vol. I, p. 236 *et seq*).

Sir Henry Cotton describing the "heaviest flood ever known" at Chooadanga (1871) assigns as one of the contributory causes the obstruction of the natural drainage.

"The embankment of the Eastern Bengal Railway, which then provided altogether insufficient waterway, was breached by these floods in several places. For some time the level of the inundation stood much higher on one side of the line than on the other. At last the water, slowly rising, trickled over the embankment, and by a force almost imperceptible at first, but after two or three days with irresistible pressure, swept away the earthwork and in a rushing torrent scoured out wide channels, one of which made a breach of a quarter of a mile in length, and was measured to be eighty feet in depth. Railway communication was, of course, interrupted."—*Indian and Home Memories*, p. 89.

Dr. Bentley, Director of Public Health, Bengal, in his evidence before the Royal Agricultural Commission (Vol. IV, pp. 240—71) has naturally dwelt at length upon the miseries caused by the criminal and wilful neglect of irrigation. A few extracts will suffice. "The whole question of irrigation is dealt with at length in my recent report on malaria and agriculture. Meanwhile I may point out that the districts mentioned below are greatly in need of irrigation, and that many other districts also require it—(1) Burdwan ; (2) Birbhum ; (3) Bankura ; (4) Midnapur ; (5) Hooghly ; (6) Howrah ; (7) Nadia ; (8) Murshidabad ; (9) Jessore. With adequate irrigation facilities, Bengal could feed the whole of India. If the existing rice-fields of Bengal gave a yield per acre as high as those in Spain, they would suffice for this purpose. If they

[1] Dr. Gopal Chandra Chatterjee, who has made the subject of malaria his own, sums up in a few lines the pith of the arguments adduced above :

"The changes in the deltaic distributories are due not to natural causes but to human interference without understanding the true nature of the problem."—*Modern Review*, July 1931, p. 73.

yielded as well as the rice-fields of Japan, they would feed 200 millions of people. 'Any country', says Sir William Willcocks, 'which possesses rivers and streams whose waters are in flood for six weeks per annum at a suitable season of the year, can betake itself to basin irrigation with more or less profit. The science of dams, weirs, and regulators has received such development during recent years that there can be no problem so difficult that it cannot be solved by experience and originality'.

"As a result, I have found again and again that severe outbreaks of malaria have been associated with the existence of economic stress in the affected community. On numerous occasions I have shown also that evidence can always be found of a serious decline of agriculture in rural areas in which the census has discovered a marked reduction of population."

Dr. Bentley further observes:

"The bad effect of embankments has been commented on in more recent times. For example, in 1893 the Magistrate of Murshidabad stated that the prevalence of fever was largely attributable to the embankments protecting that part of the country, 'the unhealthiest areas being always those best protected by embankments.' . . . . The outbreaks of malaria in Nadia and in 24-Parganas followed upon the construction of the Eastern Bengal State Railway and as we have already seen the great epidemic of fever in the Burdwan Division followed upon the construction of embankments in that part of the country also. . . . . There is considerable justification for the belief that the embanking of rivers and the construction of raised roads and railways across the surface of the country in the low-lying delta tracts of Bengal has almost invariably been followed by an increase of malaria in the areas within their sphere of influence."—*The influence of embankments upon the malaria of the delta tracts in Bengal.*

In this connection, the following quotation from a paper read at the Paris International Congress of 1889 by the Chinese statesman, General Schangte-tong is not without special interest.

"I may add that without these gigantic irrigation works, the Chinese would never have carried to such a pitch of perfection one of their most important industries. I speak of pisciculture. Thanks to the abundance of water, the whole of my countrymen, instead of contenting themselves with covering with their fishing boats the seas, rivers and lakes of our country, have devoted themselves to the breeding of fish. The spawn is everywhere carefully collected: far from leaving it to take its chance, the peasant gives this source of wealth a safe shelter in some spot where a perennial supply of water can be assured. The irrigation reservoirs teem with fish. During winter, the rice fields are fallow; the water is led into them, and they are instantly full of carp. This industry allows us to make fish a considerable factor in the food of our people. The fish are either eaten fresh, or salted, and dried; they are despatched to all parts of the Empire and sold at a price which is remunerative, though it is exceedingly cheap."

II—Malaria in Italy and Angora.

Professor Angelo Celli, an eminent Italian authority on malaria, has laid special stress on the fact that this scourge is "connected with the economic and political life of the people who inhabit the region, where it dominates".[8] One who travels by the E. B. Railway will notice that burrow pits with their stagnant pools on both the sides of the line serve as breeding grounds of the anopheles but no care is taken to fill them up or pour kerosine oil over them.

Celli is strongly of opinion that "among the causes of social predisposition must also be included, education. When this, on account of poverty, is wanting, all the most injurious prejudices, both regarding the sources and vehicles of the in-

[8] In support of this statement I may add that a very large fertile tract in the sub-division of Nator (Rajshahi) has become a hot-bed of malaria and is regarded as a veritable death-trap and is lying uncultivated. The same applies to considerable portions in the districts of Nadia, Jessore and Burdwan.

fection, and as to the mode of preserving oneself from it arise and persist".—*Malaria*, p. 182.

The Italian expert wrote the above in 1901 ; but the Italy of 30 years ago is by no means the Italy under Mussolini. Mussolini became head of the Government of Italy only in 1922. Within the last ten years he has achieved miraculous results as far as the stamping out of malaria is concerned.[4]

Italy has at the present time forty million inhabitants and yet our author records 3588 victims of this terrible scourge with evident horror. What would he think of Bengal with a population of 48 million annually claiming 400,000 as victims of malaria alone?

Mustapha Kamal Pasha has been in power only since 1922 and yet in the course of the last few years he has achieved similar miracles in Angora.

"Where is that mosquito-infested marsh from which one never failed to catch a first-class attack of malaria? It has been drained away and cleared under the supervision of a group of specialists in tropical diseases, specially organised to stamp out malaria, and in its place stands the U. S. Embassy. All the geography of the place has been changed."—Grace Ellison : *Turkey To-day*, p. 53.

[4] "But as Mussolini, through the Minister of Public Works, has been engaged during these past four years in draining and rendering arable tens of thousands of acres of marsh-land, up till now the breeding-ground of mosquitoes and of malaria, the wheat acreage and the wheat crop have increased enormously".

"Mussolini, by draining and rendering wholesome these swamps and morasses, is securing another benefit for the people as important as the grain crop, for he is gradually ridding the country of malaria. Whilst I write he has just said in Parliament that this terrible scourge claimed, in 1925, as many as 3588 victims. Besides which it embitters the lives of thousands more and renders helpless and sad the tender years of untold numbers of children. But each year the statistics show that death and suffering from malaria are decreasing, and Mussolini hopes that one day the disease will be stamped out."—A. Robertson : *Mussolini*, pp. 155-56.

III—The Effects of Malaria on Society.

On becoming Governor of Bengal, Lord Ronaldshay enquired into the condition of things prevailing in Bengal. Let us quote his remarks on malaria—perhaps "the most widespread and most virulent of all the diseases which afflict the people of Bengal":

"I frankly confess that I was shocked at the grim tragedy which my enquiries disclosed. Every year there occur in Bengal 350,000 to 400,000 deaths from this cause [malaria] alone. But a mere enumeration of the deaths gives but a faint idea of the ravages of the disease. It is probable that at least a hundred attacks of malaria occur for every death. This gives an idea of its results from an economic point of view. Its spectral finger may also be traced in the diminution of the birth-rate as well as in the increase of death-rate, with the result that in the worst malarial districts the population shows a serious decline. The state of affairs is summed up in the Bengal Census Report of 1911 in the following words: 'Year by year fever is silently at work. Plague slays its thousands, fever its ten thousands. Not only does it diminish the population by death, but reduces the vitality of the survivors, saps their vigour and fecundity and either interrupts the even tenor or hinders the development of commerce and industry. A leading cause of poverty in a great part of Bengal is the prevalence of malaria. For a physical explanation of the Bengali's lack of energy malaria would count high.'"

And how does malaria affect us socially and economically? Dr. Pais, the author of a recent report on malaria in Italy, remarks:—"The gravity of malaria infection considered as a social ailment should not be looked for in its diffusion and in the number of lives it takes from society. It tends to impress a character of regression on the population among whom it reaps its victims and causes them to fall from the grade of civilization they have attained. Compared to tuberculosis, malaria kills less frequently and less rapidly, but it inexorably destroys the more lively energies of men. It impoverishes the

blood, causes all the forces of man to droop and wither, takes away the desire for the possession of the earth and the joy in living. Malaria impresses not only physical marks but, above all, physical degeneration on the race it smites. Distrust towards works of a social character, diminished liking for work, restricted vision towards all the phenomena of life are special characteristics of those with chronic malaria and the peoples who have long suffered from the infection".

IV—The Great Quinine Mystery.

There is a cinchona plantation at Mungpoo (Darjeeling district), where quinine is manufactured at the Government factory. But strange to say the Indian public is supplied with Java quinine at a higher price (the difference being Rs. 4 to Rs. 5 per pound). Indian quinine is sold in bulk at Rs. 18 per pound.

"It is an unexplained mystery why, in view of the needs of malaria-stricken provinces and with a large stock of Indian quinine in hand, the country should be importing Java quinine at higher price. It seems an even greater mystery why the Government of India should be negotiating with a Dutch company to sell its own quinine to the company and entrust that company with the distribution of the drug in this country.

* * * * * *

"Quinine is not entirely a commercial proposition in India. It has a public health aspect. From the meagre information available to the public the sale of Indian quinine in India, without the intervention of a foreign agency, would appear to be a sound proposition commercially and otherwise. It is due to the public that the Government should reassure it that no agreement will be made by which a powerful foreign company can establish a monopoly in this country and then raise the price of a most necessary drug. The whole question is at present wrapped in obscurity.

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"Three months ago our Simla correspondent reported that the Government had 300,000 lbs. of quinine representing Rs. 54 lakhs of frozen capital on its hands, yet India is still importing 120,000 lbs. of foreign quinine a year. If the Kina Bureau thinks it can profitably undertake the sale of the accumulated stocks, it should be possible for the Government to provide a selling agency of its own, more especially

as it appears to be actually proposed that the Kina Bureau should not only buy Government of India quinine and sell it to provincial Governments at a profit, but should also sell it to the public through Government agencies such as the post offices and the railways. There is evidently money in quinine for somebody, but the peasant needs the drug and the Government should prevent the possibility of plunder."—*The Statesman*, Oct. 3, 1934.

It is thus evident that our benign government far from helping the malaria-stricken peasants actually compel them to buy the drug at a dear price.

V—Tuberculosis in Bengal.

Dr. Bentley said that "tuberculosis, was one of the crying problems in Bengal to-day and specially in Calcutta and Howrah. There were in the last 20 years only three districts in which the average mortality had shown a definite increase, in Calcutta, 24-Parganas and in Howrah. The explanation of this increased mortality in these three areas was owing to the industrial development and organisation of the areas and the increase of tuberculosis went hand in hand with the organisation and industrialism".

There is evidence that tuberculosis is exceedingly widespread in Bengal not only in the towns but also in the rural areas. Certain investigations suggest that something approaching 10 per cent. of the total mortality in several districts is due to phthisis alone. There are grounds for believing also that this is by no means an excessive estimate. In the case of Calcutta about 8 per cent. of all deaths are ascribed to tuberculosis; but Sir Leonard Rogers, as a result of a careful examination of the records of postmortem examinations made in connection with the Calcutta Hospitals during the past 22 years, has shown that no less than 17 per cent. of the total deaths were due to tuberculous disease, and that in 25 per cent. of the cases examined signs of tuberculosis were present.

Regarding tuberculosis in Bengal Dr. Lankester states in his report: "Both from towns and village districts in the neighbourhood of Calcutta . . . . . I obtained ample evidence

of the spread of consumption from the central city to parts around within a large area". Dr. Bentley said that he had for several years evidence that in certain rural areas a heavier ratio of mortality was occurring from phthisis than at present recorded in Calcutta.

In both Great Britain and America there has been a rapid and progressive decline in deaths from tuberculosis for many years past. In England and Wales they have declined by nearly two-thirds since 1847 and in America decline during the past 50 years is over sixty per cent. "I do not refer merely to the damaging figures of her vital statistics", says Sir Malcolm Hailey, "though these are very striking. If I am correct, the average expectation of life in England has increased from the figure of forty years which held the field in the years 1833 to 1854, to 55½ years in 1910 to 1920. The expectation of life in India is less than 24 years. In the years 1861-65 the death rate was 21½ per thousand in England ; it is now about 12 per thousand. The death rate in India varies so greatly with the course of epidemics that it is difficult to speak of an average ; but in the lowest years it is more than double that of England. Yet the greatest evil does not lie entirely in this terrible wastage of life ; the causes which produce a high death rate result also in a low vitality which affects the whole life of the people, and the damage to the race is as much mental as physical. Much of this is no doubt due to inadequate means of subsistence".

"Poverty, underfeeding and struggle for existence under adverse conditions—these have been a few of the many potent reasons that have led to the increase of tuberculosis in Calcutta", said Dr. T. N. Mazumdar, Health Officer to the Calcutta Corporation, in the course of an interview to the *United Press* (Oct. 1934).

Continuing he said : "Of all the problems of sickness and disease with which this province is confronted, that of tuberculosis holds the second place with regard to incidence and death. In the city of Calcutta alone there are about thirty thousand people suffering from this fell disease and approximately three

thousand die every year. In the whole of Bengal, it is estimated, there are no less than one million victims of the white plague. For eight years since 1924, the death per thousand in the city had been on an average 2.5 rising however on occasions to 2.7. But since 1932 decrease in its ravages had been evident, the death-rate falling so low as 2.1 per thousand in the same year. That can only be explained by the fact that articles of food had become cheaper which was responsible for increased vitality of the people.

"Other causes of the disease are the 'purdah', ignorance and carelessness resulting in sputum, loaded with bacilli being expectorated all over the place. Among the sufferers seventy-five per cent. come from congested, dirty and blocked quarters of the city, five per cent. from village dwellers ; two and a half per cent. caused by hereditary infection and the rest imported from outside. The attacks of consumption are found in most cases among people taking beef, especially the poorer classes of Indian Christians and Mahomedans. Death rate amongst the Mahomedans and the Hindus are 2.9 and 2.3 per thousand respectively. The highest mortality is to be found among the Indian Christians, *i.e.*, 3.3 per thousand.

"The saddest feature of the whole thing", pointed out the Health Officer, "is the very high mortality amongst young females between ages of fifteen and thirty. Between the ages of ten and fifteen years for every boy that dies of tuberculosis, three girls die. Between the ages of fifteen and twenty years, for each boy dying of tuberculosis two girls die. Between the ages of twenty and thirty years for each young man who dies of tuberculosis three women die. This is really an appalling state of affairs. The most important factor in the aetiology of tuberculosis amongst girls and young women is early marriage which subjects immature women to the strain of repeated motherhood and prolonged periods of lactation. The seriousness of this is apparent when one realises that they are the mothers of the future generation and although the disease is not hereditary, yet a weak and diseased mother will bear a

weak child, one which will easily fall a prey to the infection to which it is exposed from its very birth".

The facts and figures given by Sir George Newman show the 'amazing transformation' in the health of the British people which has taken place in the past 100 years. In India also there has been 'amazing' transformation in the health of the people. But the transformation is such as to bring tears to the eyes of a man who has lived to be fifty or sixty and who remembers still the smiling villages which had not yet proved a prey to the epidemics of cholera due to scarcity of drinking water, or which had not yet felt the effects of the scourge of malaria.

VI—Death Rate in India.

"According to the census of 1921, about one-fifth of the children in British India die before the age of one year. Out of every 100 infants born alive, 19.4 die in the first year of their life in India as compared with 7.7 in England and Wales, 8.8 in France, and 10.8 in Germany. It has been estimated that over 2 million children die every year in India in their infancy in addition to a large number of still-born. The number of children who die before reaching youth is considerable. Ten million children die between the ages of 10 and 15. In fact, scarcely 50 per cent. of the children born ever reach even a youthful age. Says the All-India Conference of Medical Research Workers, 'the percentage of infants born in India who reach a wage-earning age is about 50'. In 1921 the death-rate in India was 3.06 per cent. as compared with 1.21 per cent. in England and Wales, 1.48 per cent in Germany, and 1.77 per cent in France. In other words, as compared with England and Wales, France and Germany, the death-rate is about twice as great and the average length of life is only one half about as much in India."

One potent reason is malnutrition, as the infants between age 0—5 and 5—10 get a very insufficient quantity of mother's or cow's milk ; in short, they are fed on thin gruel of boiled rice, which neither contains nitrogenous (*i.e.* muscle-forming)

stuff nor calcium (*i.e.* bone-forming) element. No wonder that the Census Report for 1931 points out that the Muslim population is to the Hindu as 55 to 45 (approx.) ; but if babies be left out of consideration, *i.e.* if adult population be taken into account, the ratio would be 51 to 48. In other words, the mortality of the babies among the Muslims is much more than among the Hindus, though the latter is appalling in all conscience. This has reference to Bengal. Side by side may be read :

" 'Drink milk and become a Cabinet Minister' was the gist of an address delivered by Mr. Walter Elliot, Minister of Agriculture, inaugurating at Kensington Boys' School a national milk scheme which will provide all children with one-third of a pint of milk daily for ½d.

"The Board of Education and the Milk Marketing Board have combined to provide £1,000,000 to feed children and so to dispose of over 100,000,000 gallons of milk which otherwise would become surplus stock."—*Reuter,* Oct. 1, 1934.

The gloomy picture depicted above is matched by the one equally doleful, recently (Sept. 1933) broadcasted by Major-General Sir John Megaw, I.M.S. It is applicable to the whole of India.

"The data of the disease incidence is not claimed to be accurate. Tuberculosis is evidently very widespread throughout the villages of India but is specially serious in Bengal, Madras, the Punjab and Bihar and Orissa . . . . The data collected touch a variety of diseases and rural conditions of living. The figures regarding physical condition of villagers, though impressionistic, disclose that taking India as a whole 39 per cent. of the people are regarded as well-nourished, 41 per cent. poorly nourished and 20 per cent. very badly nourished."

"Commenting on the ratio of the increased population and food supply, Sir John concludes that (1) Indian population is very poorly nourished; (2) average span of life is less than half of what it might be; (3) periods of famine or scarcity of food occur in every village out of every five; (4) cholera, plague and small-pox epidemics are commonplace occurrences; (5) in spite of high death rate population is increasing more rapidly than output of food and other commodities. Sir John emphasises the need for immediate and energetic measures for averting

the disaster, but he does not consider them as sufficient unless they are accompanied by equally energetic measures for the education of the masses in the principles of life planning . . . . He considers the increase in the population of India as alarming and fears that if the entire produce of the soil is needed to provide for the urgent needs of the cultivators, nothing will be left for the payment of rents or revenue, nothing to exchange for other commodities or even for the purchase of railway tickets, and the whole structure of India must inevitably be rudely shaken if not completely destroyed."

VII—Government and Sanitation.

Every civilized country has the welfare of the people as its primary object and its rulers earmark a decent amount in the budget for sanitary purposes and the removal of illiteracy. Unfortunately, in India and especially in Bengal these two nation-building departments are starved, with what dire consequences it is needless to repeat. The late lamented G. K. Gokhale, than whom a better informed statesman India has not produced, thus laments in his budget speech of 1908:

"Hitherto we had to be contented with an annual average of 3½ lakhs a year for the whole country, and contrasted with it the Hon'ble Member's 30 lakhs a year is almost a liberal provision! It may be noted that during these same five years, while the Government contributed a mere pittance of 17½ lakhs towards the sanitation of our towns, which are being decimated by annual visitations of the plague, His Excellency the Commander-in-Chief was able to obtain for military charges a sum of about 27 crores above the level of the military expenditure of 1901-1902; and nearly 60 crores were spent as capital outlay on railways, of which one-third, or over 19 crores, was found out of current revenues. My Lord, this treatment of sanitation, as though the Government had no responsibility in regard to it, has hitherto been one of the most melancholy features of the present scheme of financial decentralisation, under which sanitation has been made over to local bodies as their concern, though they have admittedly no resources for undertaking large projects of improvement. The analogy of England is often quoted to justify this arrangement, though

on the same analogy our railway construction should have been left to private enterprise, but it is not. My Lord, our mortality statistics are ghastly reading. The officially recorded death-rate has steadily increased during the last 20 years from 28 per thousand to over 36 per thousand!"

It is rather a curious fact that Gokhale almost reiterates what *The Statesman* of Calcutta had said more than a quarter of a century earlier (Sept. 8, 1883).

"There is a wastefulness in the management of the Indian finances that is simply amazing. The Finance Department thinks nothing of holding Cash Balances of 16, 17, or even 20 crores of rupees. With telegraphs and railways all over India, a Cash Balance of 8 or 9 crores would, we are satisfied, be ample for all wants and all emergencies that are conceivable. But the idea of saving 20 or 30 lakhs a year in interest, by reducing the balances to reasonable limits is, of course, one of those peddling economies that heroic men think nothing of. At this moment, many local projects of importance are obliged to be postponed, we are informed, because of the scarcity of money in Calcutta. We stand in the midst of opportunities of all kinds, if the Government of the country had but the insight to discern them. Think for a moment what 2 crores of rupees lent to a great Metropolitan Board of Works would do for Calcutta and its suburbs. And the 2 crores will lie tarnishing there in the Treasury for 20 years on end, while, fever, cholera, dysentery and consumption play havoc amongst the population."

It is, moreover, significant that even half-a-century ago "fever, cholera, dysentery and consumption were playing havoc".

Two years later Gokhale returns to his charge but to no purpose:

"My real object is to secure the surplus of the year for expenditure in the promotion of sanitation throughout the country. What usually happens under the procedure adopted in connection with a surplus is this. The surplus forms part of the cash balances, and out of the cash balances a certain

amount is devoted to capital expenditure, whenever this is practicable, and thus the surplus ultimately finds its way into capital expenditure.

"Starting with the year 1898-1899, we find that we have had, during the ten years, ten consecutive surpluses amounting to 25 millions sterling or 37½ crores. And the bulk of them have, under this system of accounts, gone first to railway construction and from there to the reduction of our unproductive debt. Now, railway construction is a most desirable object, and so is also the reduction of the unproductive debt. Ordinarily, there would be nothing to be said against it, but at present, when there are objects, far more pressing and far more important, which require money, I do not think the Government is justified in devoting such a large sum out of surplus revenues in the way they have done. If this sum of £25 millions sterling, or 37½ crores of rupees, or at any rate the bulk of it, had been devoted to sanitary projects throughout the country, what a difference it would have made in every direction! I do not think I need say much about the needs of sanitation; the ravages of plague, malaria and other diseases in all directions and a death-rate already high and yet steadily rising—for 1907-08 it was 37 per thousand as against 35 per thousand in the three previous years—all that show that one of the greatest needs of the country to-day is improved sanitation.

"What I propose is this. Whenever a surplus is realised, instead of its being devoted to railway construction or some such object, it should be placed automatically at the disposal of Local Governments. A surplus is so much excess revenue taken from the people by the Government over and above its requirements."—*Budget Speech*, 1910.

A few years ago the late Mr. Moti Lal Ghose described a typical village during the days of his childhood:

"Have you, my young friends, any idea of what Bengal was 60 or 70 years ago? There were then very few towns and Municipalities in the Province. The pick of the nation lived in rural areas.

"The people had abundance of food, and had good appetite. There was scarcely a family, however poor, who had not one or more milch

cows. Rivers, channels, khals, tanks and ponds abounded in fish. Fruits were plentiful and so were fresh vegetables. Rice used to sell at an incredibly low price and all kinds of cereals were also very cheap.

"Villages in those days thus teemed with healthy, happy and robust people who spent their days in manly sport; in wrestling and playing lathis and swords; in swimming and climbing up tall trees; in riding and running.

"In short, the people could in those days nourish their bodies properly with wholesome food and pure drinking water; they could keep their villages dry by natural drainage; they had not to struggle hard for their bread; they had enough of cattle and unsilted-up waterways to furnish them with such nourishing food as milk and fish. They had also several other advantages which we do not possess now, with the result that they were able to enjoy an idyllic life six or seven decades ago, which has passed beyond our wildest dreams to-day."

The Indians have become physically weak and this is primarily due to poverty and want of food. Sir John Woodroffe rightly says:

"The first fact we notice is the weakness of the body. This is due to the great poverty of the mass of the Indian people."

Mr. A. G. Gardiner presents us with another picture:

"Whatever differences of opinion there may be as to the conditions of life to-day compared with those in the past, there is one respect in which the present has the verdict beyond any possibility of challenge. If life is a good thing—and, with all its ills, no normal person doubts that it is a good thing—we have it more abundantly than any generation that has preceded us since human life began on this planet.

Middle-aged at Forty.

"I speak of course of the quantity of life. I believe the same is true of the quality; but that is perhaps arguable and I do not propose to argue it here.

"But about the quantity of life there can be no argument. Even as recently as the eighteenth century men were middle-aged at forty, old men at fifty, and if they were rich, died of gout and port wine, or, if they were poor, of starvation and misery before they were sixty.

"In the last century we have added twenty years to the average life. Fifteen of those years have been put on during the last fifty years and the pace in the last ten years has been more rapid than ever before.

"Take one or two facts from the official statistics. You will find them in 'Whitaker' or any book of reference. If, being a man, you had been born in 1871 your expectation of life would have been forty years ; if you were born in 1921 your expectation is fifty-five years.

"The case of the woman is even more remarkable for at all stages of life women have a better prospect of living than men. A female child born in 1871 had a prospect of forty-eight years' run on earth ; a female child born in 1921 has a prospect of over fifty-nine years.

"And this is not all. It is not merely that we live longer than our forebears but that we are more free from ailments than they were. They died prematurely from disease. We live the normal span because in the mass, we are more free from disease.

Maternity Lead.

"The main cause of this striking prolongation of the average life is, of course, that we have stopped 'the massacre of the innocents'. Since 1907 the infantile mortality of the country has been halved.

"I can remember that in the nineties of last century towns like Burnley and Preston, and London boroughs like Shoreditch and Bermondsey, had an infantile mortality of 200 and over per 1000. This is, one in every five children born was born only to die. To-day the infantile death-rate of the country is sixty. With the exception of Norway we lead all Europe in the preservation of infant life.

"That is a magnificent achievement, due to better conditions, better sanitation, the establishment of maternity centres and maternity hospitals and the greater attention to pre-natal condition and child welfare. And it is not only the children who are saved. It is the mothers, too. The decline in the

deaths at child-birth is as remarkable as any feature of this resounding victory over death.

"Do not tell me that the world does not get better. It does in a hundred ways. This is one of them.

"But it is not only the children who are saved. The adult life is lengthened too, and this brings me to that conquest of disease which is the greatest triumph of modern civilization. I have before me the annual mortality statistics since 1871 for England and Wales. It reads like the record of a great battle in which the forces of death and disease are being routed with gathering momentum.

"Let me give a few of the facts it discloses. That dreaded enemy of the human race, tuberculosis, is in full flight. In 1871 of every million people who died, 2,884 died from tuberculosis in one of its forms. In 1930 the toll of tuberculosis had fallen to 872 per million deaths."

CHAPTER VIII.

Havoc Caused by Floods.

Some of the causes of the disastrous floods were discussed in connection with flood in North Bengal (Vol. I., p. 238). I pointed out how these were mainly due to the policy of the government in allowing embankments for railway lines to be raised in utter disregard for the considerations of natural waterways. Even sufficient openings are not kept to allow for the natural flow of water. The government want to establish the straightest lines of communication, at minimum cost. Leaving of gaps in railway embankments and spanning them by steel culverts and bridges involve great costs and therefore they are avoided or shortened beyond proper limit. In consequence of this, water stagnates leading to conversion of healthy districts into malarial bogs and gives rise to devastating floods which would otherwise have been prevented. The sufferings of the people know no bounds. But they have no remedy against this legalised oppression of the government.

I—Floods and Their Causes.

The present year is *annus mirabilis* as regards floods with their attendant miseries. We have floods on the north, on the south, on the east and on the west of this vast peninsula; on the top of it happens the greatest catastrophe known in modern India—the great earthquake of Northern Behar.

The Orissa and the Midnapore floods, however, take the precedence over other floods of the year on account of the magnitude of their havoc and devastations. In North Bengal it was the shortsighted policy of the government with regard to the railway embankments that was responsible for the disasters.

The floods of this year in Orissa and Midnapore and waterlogging in the suburban area of Calcutta, illustrate the disastrous

results of the government policy with regard to canal embankments. The root cause is the same, namely, obstruction to natural passages of water on account of embankments raised for setting up cheap lines of communication. Canals are sketched out on maps in straight lines. No consideration is given to the drainage of the surrounding lands. Some sluice-gates are kept for draining flood water but they are either inadequate or inoperative and mostly the canal leads and embankments are designed in such a way that the sluice-gates are mere eye-wash, for they cannot receive the drainage from the surrounding lands —they are not designed to do so.

II—Water-logging of Calcutta Suburbs.

Take for example the case of water-logging of the Calcutta suburbs. Within almost earshot of north Calcutta, 50 to 60 villages under the police outposts of Dum Dum, Bhangor and Rajerhat, occupying 80 to 85 sq. miles have been submerged. Some sixty thousand helpless people, the majority of whom are Moslems, have been reduced to destitution—their thatched hovels are standing on islets and the cattle perishing for want of fodder; some of the inhabitants are living on improvised *machans* (raised bamboo platforms); their crops have rotted away. For the last 12 or 13 years water-logging of this description, though not so disastrous, has been almost an annual occurrence. Before 1910, there were 7 or 8 outlets for the escape for water to run off; but in that fateful year a canal was excavated by the Cess Department for navigation purposes; it ran straight across many of these drainage channels and in order to keep a supply of water at a constant level in the canal, the mouths of these drainage channels were closed up. The canal connects salt water tidal rivers running through the Sunderbans at Kulti at one end with the river Ganges near Cossipur (Calcutta) on the other end. Ganges water besides being excellent for drinking contains fertilizing mud during the rains. If it could be kept filled up with Ganges water then this canal which passes through a salt water area, could be a blessing to the numerous

villages on either side, which suffer severely for want of drinking water. In fact there are villages from where people walk miles to get water from particular tanks in favoured spots in the vast salt water area. Then again, during flood tide of the rains this canal could have been designed to throw silt-bearing Ganges water on the surrounding lands and thereby fertilize the soil. The Government could have levied a cess for allowing this canal to be used as an irrigation canal which the locality really needed. But the consideration before the government was not one of irrigation. The establishment of a cheap and straight line of communication was the objective. If, therefore, when only water has to be filled in the canal, why not fill it with clear salt water? That water will never deposit silt and there will be no expense for redredging. The canal therefore tantalises the people of the neighbourhood. It is connected with the Ganges but is filled to the brim with salt water. But the greater part of the tragedy yet remains to be told. As irrigation was not the objective, therefore, drainage was also lost sight of. In order to cheapen the cost of construction the bed of the canal was excavated shallow. It has been made so shallow that boats cannot pass if the level of canal water is kept at the level of the surrounding lands. The water level of the canal was artificially raised by using the embankment as a part of the trough of the canal. The canal therefore shuts off all possibility of receiving normal drainage of the lands. On the contrary, if the embankment leaks then cultivable fields along the canal get filled with salt water ruining the standing crop and offering little prospect of crop in the next season. From 1910 this canal has converted large areas of cultivated lands into water-logged areas. In some years due to natural causes the accumulation of water becomes excessive and prevents cultivation altogether.

Some villagers took up one method of protesting against government action. They refused to pay Union Board taxes, they refused formation of Union Board even, which is set up in villages for administrative facility. Their property were being seized by process of certification and auctioned year

after year. At last the Government wanted to soothe them. When the villagers wanted the government to undo the mischief caused by the canal, the government remained adamant. This year the complete destruction of crop due to water-logging and prospect of future failure of crop due to ingress of salt water drew some amount of public attention. On the 9th August, 1933, the Hon'ble Member in charge of Irrigation and Cess Department visited this afflicted area and assured the doomed sufferers that he would see that the lock-gates were opened to let off the water. On the 13th of August and again on the 27th, 14 members of the Legislative Council accompanied by the authorities in charge of the Cess Department also visited the place in response to the bitter cries of the victims. But alas! nothing came of it. We learn that the experts are of opinion that the navigable canal with the lock-gates will have to be sacrificed, if such a course be adopted and the Hon'ble Member, who, of course, comfortably draws his Rs. 64,000 a year, is helpless and assumes an attitude of non-possumus. Here at any rate this disaster is not due to an "Act of God", but to criminal human folly and the callous indifference of our *paternal* Government to the agonies of the flood-stricken, which has become almost proverbial.

III—Floods in Midnapore and Orissa.

This is in line also with what happened in Midnapore. An experienced worker in the previous floods thus describes the causes which have aggravated the damage caused by the floods in Tamluk and Contai (Midnapore).

"Firstly, on the sea-coast abutting upon the above sub-divisions, a massive embankment has been raised to protect the land against the inroads of the sea ; but a sufficient number of sluice-gates has not been provided.

"Secondly, in the pre-railway days, in order to facilitate communication between Calcutta and Puri (Temple of Jagannath), a canal was cut (Hijli Tidal Canal—1868-73 and Orissa Coast Canal 1880-86). This canal runs parallel to the sea-coast in many portions of Tamluk and Contai and is pro-

tected by high embankments on both the sides. During the excavations of the canal, many outlets for the passage of water, which ran athwart the natural drainage, were filled up.

"Thirdly, since the opening of the Railway, the river traffic has been diverted, with the result that the canal as also the sluice-gates were relegated to neglect and fell rapidly out of repair thus preventing escape of the accumulated rains collected in the basins."

A correspondent who is evidently well-informed lays stress upon the fact that before 1861, there were, no doubt, floods, but with this difference that the water sought its own level and found its way into the adjoining rivers and finally into the sea. Another source of mischief lies in the fact that the government, for the protection of the *Khas Mahals*, as also the Zemindars have raised many local bunds to save their own crops. It will thus be seen that the folly, wanton neglect, and selfishness of the government and the local landlords have conspired to bring about these disasters. Four hundred sq. miles have been submerged and the loss involved in the total ruin of the standing crop and the mud walled houses, has been estimated at Rs. 75 lakhs. This, of course, does not take into account the miseries caused to the people and the cattle. Our paternal government which is directly responsible for the calamity eased its conscience by granting an agricultural loan of Rs. 25,000,[1] almost a drop in the bucket.

Midnapore is adjacent to Orissa and the offending canals that pass through Midnapore reach also Orissa which has been rendered a land of perpetual flood and water-logging—thanks to government policy of throwing up embankments.

In Orissa the evils of a short-sighted government policy of irrigation has assumed vast magnitude. Magnificent rivers passing through this land have been protected or killed with embankments and dams. The Mahanadi and the Katjuri rivers have been played with. Dams have been thrown across

[1] This Tuccavi loan is of a pernicious character. As soon as the next year's crop is harvested the payment is exacted by certification.

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to store up the water for serving as heads of irrigation canals. They still do supply irrigation water but how will mere water fertilize the soil which hunger for the muddy water of annual healthful inundation? Again, the town of Cuttack is now in a trap, for the beds of both the rivers have been raised up higher than the ground level of the town. The river is kept in its course by embankments. The artificially raised up beds sometimes break, as happened this year and the torrential water washes away every thing before it. Even where the government wanted to help the people, its shortsightedness and inexperience in handling with the rivers of India have brought on incalculable woe to the people.

The recent devastating flood in Assam is due, no doubt, to an "Act of God", but the damage caused by it would have been far lessened if a sufficient number of passages as outlets for water had been provided. Here again, the criminal neglect of the government is discernible. Let a correspondent who evidently speaks with local knowledge describe the gloomy situation.

"The harrowing tales of disaster wrought by the flood in Nowgong have invited the notice of all the people of India.

"From this one can easily imagine the intensity of the flood and the magnitude of disaster wrought by flood and the relief necessary to alleviate the distress of the people.

"The people inhabiting the South Valley of the Kapili river have been the worst sufferers for the last 15 years and during this period not less than 3 times the people fell under the grip of flood. Of these the recent flood is the most dreadful and unprecedented in the history of Assam.

"The flood here has been an unusual phenomenon which no human brain could have prevented. But had there been sufficient number of railway and other culverts for such an emergency to make the passage of the water to the north easy, the havoc wrought by the flood would have been much less. Even now the water level on the south side of the railway line is higher by two feet than on the north and the damage caused on the same level of ground on southern side of the railway line is much more extensive than on the north. The same thing was experienced in the 1929 Flood."—K. Hazarika, *The A. B. Patrika*, Aug, 26, 1934.

IV—Man-made Malaria in India.

The All-India Conference of Medical Research Workers resumed its deliberation on Friday morning (Nov. 30, 1934). The report of the Malaria Committee was first considered.

"The Sind Malaria Enquiry in connection with the Sukkur Barrage next came up for consideration. This enquiry has continuously studied the conditions before, during and after the construction of the barrage. A resolution to the following effect was passed: 'That this Conference regrets the rise in malaria that has occurred as the result of the Sind Irrigation Project, and that the definite warnings of the Malaria Survey of India in this respect have apparently gone unheeded. In future in all the provinces of India, before any irrigation or major engineering projects are undertaken, there should be greater and compulsory co-operation between the Irrigation or other departments concerned and the Public Health Departments.' The fact that the subsoil water-level has risen in many areas around the project, that villages have had to be evacuated in consequence, and that malaria is steadily on the increase in this area is due to the neglect by the engineers of the possibilities of a renewal of malaria in the area concerned. In brief, malaria in Sind is a very good example of man-made malaria in India."

Thus the Sukkur Barrage Scheme carried out at an enormous expenditure, and which was announced in London a short while ago as a triumph of British rule has proved to be a veritable curse.

V—The Problem of Rivers in Bengal.

The following are taken from *The Problem of Rivers in Bengal* by Mr. A. Hussain.

"All sorts of sanitary evils, economic ills, poverty and death that have been slowly leading her (Bengal) to decline and decay, day by day, are largely due to the deterioration of her rivers.

"I think that the true remedy of all these ills lies in the resuscitation and perpetual conservation of the rivers of the province.

"Rivers were the only means of communication all over Bengal from the Sunderbans to Jalpaiguri and from Satgaon to Chatgaon. Inter-district trade was carried on chiefly by means

of boats of large size, their capacity varying from 100 maunds to over 1000 maunds. Excepting the main channels of the Ganges and the Brahmaputra, there were 'rivers of first class size such as the Karatoya, the old Brahmaputra in Bogra and Rangpur, the Atrai, the old course of the Tista in Rajshahi that ordinarily admitted 'boats of 1000 maunds burthen'. In olden times the whole trade of Bengal districts went by rivers. One could travel by a boat throughout the province. Commodities of one district were carried by boats to another district for exchange. Large river marts sprang up on the banks of the rivers. . . . The Karatoya was so large and deep that it used to drain all waters of Rangpur and the neighbouring districts without causing floods. The North Bengal was therefore less subject to occasional floods than now. . . . . The Karatoya soon silted up and waters were diverted in all directions causing floods here and there. . . . The great export trade was effected from the marts on the Karatoya and the Nagar and the Jamuna. Boats from Jessore, Bakarganj, and Calcutta used to go up these rivers into interior river ports. When Hunter wrote he also found river traffic in all parts of Bengal as active as Major Rennell reported. The Nadiya Rivers were the distributing channels and the Atrai-Karatoya-Tista were collecting streams. The river traffic was also a source of income to the Zeminders and the government. The mooring-dues were fixed and collected regularly and traders never grudged such taxes. Every district of Bengal was engaged in export and import trade. The Collector reported that in Rajshahi nearly half the people lived by river trading. The commodities dealt were generally cotton, silk, salt, rice, jute, indigo, cloth, sugar, molasses, long pepper, pulses, oils and many other that satisfied not only the needs of Bengal but those of many other countries. Every district had a balance of trade. The Collector of Jessore reported in 1794: 'Exports greatly exceed the imports in value and the balance of trade is in favour of the district'. The Collector of Rajshahi reported about hundred years after in 1870: 'The local manufactures as well as the crops are in excess of the local demand, and are

largely exported to neighbouring districts. The exports are considerably in excess of the imports and an accumulation of coin is going on in the district, in consequence of the balance of trade being in its favour'.

"It is to be noted here that fisheries of Bengal were much more valuable than now. In 1870 the Collector of Rajshahi estimated the value of the fisheries of the district to be about Rs. 2 lakhs or £20,000 annually. In the same year the Collector of Bogra also gave elaborate figures from which he concluded that the annual income of the professional fishing classes was about £30,000. . . . . Fisheries of the Nadiya and Jessore rivers were also very important. But in large part of Jessore and some part of Nadiya now, fisheries have considerably decayed and the inhabitants can hardly get sufficient fish for their own consumption.

"There were excellent pasture lands and jungles on the banks of the rivers. They afforded good opportunity for rearing cattle. Deara-Char in Khulna, Goalabatan on the Madhumati, Madukhali on the Kapotakshi, older sandy banks or *chars* of the Brahmaputra in Bogra still provide extensive pasture grounds. But with the increase of grain prices and disappearance of supplementary local industries, the pasture lands are gradually being encroached upon by agriculture and consequently cattle-raising as an occupation of late, has considerably decayed. . . . . In a word, with the gradual disappearance of rivers, various sources of income in Bengal are also being closed.

"Pasturage is brought under the plough and consequently milk has now been an article of luxury for the few.

VI—Railway and the Deterioration of Rivers.

"Besides, the railroads have played an enormous part in choking up the rivers and obstructing the rapid streams. The Khulna branch of the Eastern Bengal Railway has crossed various rivers and channels flowing north to south. They have been bridged over. The pillars have obstructed the streams. Of these rivers, the Jamuna of Dinabandhu Mitra, the Ichhamati,

the tortuous Betna, the 'immortalised' Kapotaksha and the Mukteswari, which once used to carry to the sea the waters of the Ganges in addition to the accumulation from local rainfall, have been seriously affected to the detriment of navigation, nay life and property of thousands of people on their banks.

"Railways are undoubtedly a source of blessings to Bengal but at the cost of a natural source of blessings, *viz.* rivers. In America, France, Germany and even in England, Railways only supplement waterways. In those countries the State is spending freely on the regulation and improvement of rivers. But in Bengal railways were constructed but nothing practically has been done to counteract their adverse effect on the rivers over which they have passed and to arrest the consequent deterioration which has been hastened thereby. So I am tempted to put down that the blessings of railways have been more than counterbalanced by the deterioration of our rivers.

"The physical conditions of our rivers, tidal and non-tidal, torrential and slow, dead and dying all are to be studied scientifically as the Seine has been studied in France. The natural state of any river depends upon a variety of physical conditions."

VII—Why is Bengal in Death Grip?

A writer in the *Basumati* (Aug. 5, 1933) describes the condition of Rajshahi. We give translations of certain portions:—

"I have toured from village to village; everywhere the old inhabitants with tears in their eyes have related to me the prosperity of the district half-a-century or more ago. . . . . I have heard of the glorious days of Natore, Putia and Dighapatia Raj families. . . . . I have heard that in 1859 from Natore alone raw silk and six varieties of Muslin used to be exported to Europe as also to Bussora, Mocha, Jedda, Pegu and Malacca. I have heard that on the bosom of the living rivers Mahananda, Narada, Baral, Atrai, Jamuna and Gadai, country boats laden with commodities used to ply and crowd the ports. I have heard that the muscular Kaibartas, the heroic Namasudras, the

high-spirited Rajbansis used to compete in health and vigour with the Brahmins.

"But to-day the Narada, the Baral, the Gadai and other rivers are being dried up—thanks to railway communication, the flowing rivers have been neglected and allowed to be silted up. . . . The different industrial arts have decayed along with the people. The Census Report tells a doleful tale—the population has dwindled down considerably and some castes are threatened with extinction. Thousands of bighas of lands have become depopulated and are overgrown with jungles. While the local peasants on account of the deterioration of their health due to malaria, are incapacitated for hard work, a constant stream of immigrants is to a certain extent filling up the gap—namely Oriyas, Santals, Oraos etc. . . . . Why is this sad condition? Let the government report explain: 'The effect of unfavourable agricultural conditions are accentuated by the prevalence of malaria.' "

Prof. M. N. Saha, who has himself taken a leading part in rendering me help in relieving the flood-stricken, contributes a valuable article, entitled 'Need for a Hydraulic Research Laboratory in Bengal' (*Acharyya P. C. Rây 70th Birthday Commemoration Volume*) from the foreword of which I quote a few lines:

"Within the past ten years (1922-32) large regions in Bengal have been visited by two catastrophic, and many other minor floods, causing widespread havoc and distress amongst the rural population. Acharyya Prafulla Chandra Rây has been foremost amongst the leaders of the country in the matter of organisation of relief for the flood-stricken people. He identified himself so thoroughly with this work that Mahatma Gandhi jocularly describes him as the "Doctor of floods". When the writer of this article was asked to contribute an article to the Jubilee volume which is to be presented to the Acharyya on the happy occasion of his seventieth birthday, he thought that nothing could be more pleasing to him for this occasion than a scientific analysis of the causes of these catastrophic floods and other attendant evils, such as malaria and erosion, and suggestion of measures for combating them."

But who will listen to his warning?

POLITICO-ECONOMIC

CHAPTER IX.

Military Expenditure—A Huge Burden on the People of India.

"India has been the English barrack in the Oriental seas."
Viscount Cranborne, afterwards Marquis of Salisbury.

Very few have now the hardihood to deny that India has been saddled with a military expenditure far in excess of her own needs. The military expenditure of India, which at present amounts to nearly 55 crores of rupees,[1] swallows 47 per cent. of the total revenue. The following table exhibits the figures of net military expenditure for each year since 1921-22:

1921-22	...	...	Rs. 69.81 crores.
1922-23	...	...	,, 65.27 ,,
1923-24	...	...	,, 56.23 ,,
1924-25	...	...	,, 55.63 ,,
1925-26	...	...	,, 56.00 ,,
1926-27	...	...	,, 55.97 ,,
1927-28	...	...	,, 54.92 ,,
1928-29	...	...	,, 55.10[1] ,,

I—How has India been "Bled White".

During the Boer War 10,000 white soldiers under Sir George White were locked up at Ladysmith in spite of the Russian menace threatening India. During the late war again India was "bled white" (*i.e.* denuded of soldiers, British as well as Indian), to quote Lord Hardinge, and internal peace was maintained practically with the aid of policemen. There is thus not a shadow of justification for the disproportionate

[1] The military authorities are credited with a solid reduction of Rs. 6 crores in about 50 crores in 1934-35. How has this been achieved? By postponement of re-equipment and building programme and partly

strength of the army. The fact is that the army quartered in India is a part and parcel of the Imperial army kept on such a footing as to ensure the supremacy of England in Asia from the far East to the near East. If one were to take stock of the unjust and iniquitous burdens thrown upon India for purposes in which she was not in the least concerned a separate volume would have to be written. Take the several Afghan Wars, which were forced upon the hapless Amirs because they were suspected of intriguing with Russia or because they, as Sovereign powers, did not think it consonant with their dignity or interests to seek alliance with the British Power.[2] Take again the Abyssinian War and the Chinese Wars. In the former case the semi-savage king Coomasie had taken it into his head to imprison a handful of Englishmen and on his refusal to set them at liberty a war was declared. Indian troops were shipped from Bombay. The expedition under the Commander-in-Chief, Sir Robert Napier, landed from the Gulf of Aden. Magdala was readily taken ; in fact it was a case of "I came, I saw, I conquered". The original estimate for the war

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by reduction of stores and "partly real permanent retrenchment and economies". Sir George Schuster did not care to analyse the part under inverted commas.—*Cf.* Budget Speech for 1934-35.

Compare also : "The military expenditure reaches nearly £20,000,000 and has the melancholy distinction of being probably the highest, except one, in the world."—W. E. Gladstone (*Nineteenth Century*, Sept. 1878).

[2] "Last year I referred to the enormous expense of the Afghan War—about £15,000,000—the whole of which ought to have been thrown on the taxation of the people of England, because it was a war commanded by the English Cabinet for objects supposed to be English". —John Bright (1859).

This refers evidently to the First Afghan War. The Second Afghan War which was of England's own seeking cost another Rs. 28 crores. Lord Northbrook refused to be a tool in the hands of the Secretary of State for India (Lord Salisbury) to pick a quarrel with the Amir of Afghanistan and resigned in disgust. His successor Lord Lytton came out to carry out the mandate of Beaconsfield ministry.

Cf. "There are several places which are called the keys of India. There is Merv . . . there is . . . . Ghuzni, there is Balkh, there is Kandahar. But my Lords, the key of India is not Herat or Kandahar. The key of India is London" (Lord Beaconsfield).—Oxford and Asquith : *Fifty Years of Parliament*, i. 55.

expenses was £1,000,000 but, as invariably happens in India, (*e.g.* in the three Afghan Wars, in the Delhi construction, and in the Back Bay Reclamation) it was exceeded many times over and the cost of relieving thirty captives amounted to £10,000,000. The two Chinese or the "Opium" wars arose out of the bitter protests of the Chinese against the introduction of the drug ; it was, however, forced down their reluctant throat at the point of the British bayonet and a considerable burden of the war was thrown upon the revenues of India.[3]

It might be urged that as India was primarily benefited by this unhallowed traffic, no injustice was done to her ; but the treaty ports extorted from China have immensely benefited British trade. I conclude with the Burmese War. It suited the purpose of Britain to pick a quarrel with King Theebaw. There were rich forests of teak wood, precious mines of oil and gems. Manchester also wanted an expansion of her markets. Cupidity coupled with political foresight

[3] *Cf.* P. R. Harris : *J. N. Tata*, p. 12 :

"I am very sorry to hear of the decision that India is to continue to pay for the ordinary expenses of troops employed from this country in Abyssinia . . . Surely this is neither a question of hiring or lending, but simply one of payment by the country which employs the troops. I believe that I am right in saying that all the expenses of British troops employed in the Mutiny, who came from England, were paid out of the revenues of India. Again, I was not aware that any portion of the cost of China War had been debited against India. I am sure that it ought not to have been so, ..."—Lord Lawrence to Sir Stafford Northcote, Secretary of State for India, 1867-8.

Lord Cranborne characterised the Abyssinian war as "one of the wickedest wars ever undertaken." His Lordship also uttered these memorable words : "The special injustice of the course now about to be pursued, consists in this : that when we employ English troops on an Indian duty—as in the case of the Mutiny—they are paid for out of the Indian revenues from the moment they land in that country; but when we employ Indian troops on an Imperial duty, we say that India must pay for them."—*Hansard*, Vol. cxc., pp. 359, 407.

Indeed, this vicious doctrine has become so deeply engrained in English politics, that Sir R. Temple assigns as one of the causes why "England must keep India", the following : "Because the Indian Empire . . . has rendered assistance in British wars waged beyond its own limits, in Persia, Abyssinia, and China."—*India in 1880*, p. 197.

hastened a conflict. Burma was annexed and added to India. The cost of the war as also of the army of occupation was thrown primarily upon Bengal by increasing the salt-tax, in other words, the only luxury, which the poor ryot enjoys. A pinch of salt—was rendered dearer and sometimes beyond his reach so that British exploiters might reap a rich harvest.[4]

I have cited the above instances only to show that India has absolutely no control over her revenues. Millions are squandered for Imperial aggrandizement; the loud protests of her people count for nothing. She is "bled" profusely, to quote the frank admission of the late Lord Salisbury.

In support of this assertion we can quote the following opinion expressed not by an Indian politician, but by the Government of India:

"The Imperial Government keeps in India and quarters upon the revennes of that country as large a portion of its army as it thinks can possibly be required to maintain its dominion there; that it habitually treats that army as a reserve force available for Imperial purposes; that it has uniformly detached European regiments from the garrison of India to take part in Imperial wars whenever it has been found necessary or convenient to do so; and, more than this, that it has drawn not less freely upon the native army of India, towards the maintenance of which it contributes nothing, to aid in contests outside of India with which the Indian Government has had little or no concern."

Is anything more necessary to prove that the army in India is of an Imperial nature maintained with an eye to Imperial purposes? Can the Government of India go back upon the statement quoted above?

We make no apology for presenting the army head-quarters with yet another quotation in support of our contention and that from the writing of the present Prime Minister

[4] *Cf.* "That means that if the accounts of Upper Burma had continued to be kept separate, it would have been 18 or 19 years before Upper Burma was able to make the two ends meet . . . . This return prepared by the Accountant-General of Rangoon, and laid by the Government of India on the table of this Council, shows that for more than 40 years the whole of Burma was not paying its way; and as a result we find that Burma is indebted to-day to India to the tune of about 62 crores of rupees".—*Gokhale's Speeches* (Natesan & Co.), pp. 194-96.

of England. Referring to 'the epoch of bombastic Imperialism at the expense of India' he said:

"It is unspeakably mean of us to place the burden on the Indian's back simply because he must bear any load we put upon him. Nine-tenths of the charge of the Army in India is an Imperial charge. Canada, South Africa, and Australia should bear it as much as India. It is a piece of the most bitter cynicism to find the Imperial doors of our colonies shut in the faces of these poor people, who bear such an inordinate share of the cost of Imperial maintenance, and at whose expense these Dominions are protected from the fear of war. If £18,000,000 of the Army charges were met by the whole Empire we might look the Indian tax-payer in the face as honest men. At present we cannot do so."

"The last and 'most unkindest cut of all' has come from the decision arrived at by the Capitation Tribunal—a decision which was published only on the 20th December, 1933 and by which the Imperial contribution to Indian defence expenditure has been fixed at £1,500,000 (and not £18,000,000 as recommended by the present Prime Minister of England in his pre-Prime Minister days). And why have the members of the Tribunal recommended this annual grant? Because they hold —(*a*) that the armed forces in India constitute a force ready in an emergency to take the field at once, a position which does not exist elsewhere in the Empire, and also a force which is specially available for immediate use in the East, and which has on occasions been so used; and (*b*) that India is a training ground for active service such as does not exist elsewhere in the Empire.

"Can it be said after this that the size and cost of the army in India are only such as are absolutely necessary for the defence of India against external aggression and the maintenance of internal order?"—*The A. B. Patrika*, March 3, 1934.

Sir John Strachey, an authority on problems of Indian administration, said years ago:

"The ultimate basis of our dominion in India is obviously our military . . . . . power, and this to be capable of being exercised on sea and land not only within India itself but far beyond her borders. . . . . In Persia and the Persian Gulf, in Arabia, in Africa, in Tibet, in China, and in Siam there are great Indian and Imperial interests which, let us trust,

British statesmen will never forget, and which they will defend with all the power of the Empire."

While Sir John Strachey only referred to Imperial interests, the author of *The Failure of Lord Curzon* was more explicit. He wrote as follows:

"It may be alleged that the present Indian army is not in excess of Indian requirements. The London *Standard* disposed of this assertion with succinct clearness a few months ago. 'Ladysmith,' it wrote, 'we should remember, was defended mainly by regiments which had been embarked in India. It was an Indian general, commanding native troops from India, who relieved the legations at Peking; and it was from native regiments that our Chinese contingent of occupation was supplied. Since the beginning of the war in South Africa more than 13,000 British officers and men had been sent to that country from India, and they were accompanied by over 9,000 natives, principally followers and attendants. To China there were forwarded from India 1,300 British officers and men, some 20,000 native troops, and 17,500 native followers. *Such is the scale* on which India, at the shortest notice, and *without dislocating* her establishments, can contribute towards the military capabilities of the Empire *beyond her own frontiers.*' That is just it. India, starving India, is being used to feed, train and equip great bodies of troops for employment outside India."

Thus the London *Standard* blundered into downright truth.

Even a prominent propagandist of British Imperialism like Sir Valentine Chirol could not overlook the fact which the military authorities in India want to discard. He said:

"It is no secret that the Government of India have frequently remonstrated in vain when India has been charged full measure and overflowing in respect of military operations in which the part borne by her has been governed less by her own direct interests than by the necessity of making up with the help of Indian contingents the deficiencies of our military organizations at home."

II—Iniquitous Crushing Military Burden Thrown on India.

"The whole question of the expenditure on the British Army in India surely requires reconsideration. In 1922 an eminent Civil Servant 'holding one of the highest posts in the gift of the Crown' wrote thus to the Inchcape Committee:

"The British Army in India is not there from entirely altruistic motives. India is a valuable training ground for troops, it gives a free supply to Great Britain of trained reservists, while it affords a livelihood to numbers of white men of the Officer class in the Army as well as to a few thousand more of the same class, to be found in the various European services, whose presence there and the authority that they wield are at bottom based upon the British Army in India.

"The same British Army in India is the backbone of the vast European interests in the country, which, as history shows, had to employ European troops of their own at a time when their commercial stake in India was infinitely smaller than it is to-day.[5] Again the British Army is undoubtedly maintained to protect the lives of European men, women and children in India, in case at any time racial hostility or mob violence should put them in danger. It is true that the British Army by its presence protects millions of Indian lives, but its *raison d'être* in this country is the maintenance of British rule, the safety of Europeans, and the security of British commerce. It cannot, of course, protect those interests without also protecting Indian lives and property, but when two parties receive mutual benefits, it is not *prima facie* unfair that both should contribute to the cost of them, and I cannot withhold sympathy from the Indian, who finds his taxes rising to meet the ever-increasing cost of a constant succession of British soldiers, whose services are permanently valuable to Great Britain, but are not permanently valuable to India."—*The A. B. Patrika*, April 6, 1934.

Sir P. C. Sivaswamy Aiyar, who is a politician of the moderate school and who commands universal respect, has made the question of the Indian Army his special study. A few lines on his latest contribution to this subject may be quoted here: "The Simon Commission have dexterously devised a scheme which will keep India in perpetual bondage and tied to the chariot-wheels of the Imperial Government. . . . . At no stage is it contemplated that the Indian Legislature should have any part or lot in the control of the Imperial Army which she must subsidise. . . . . As a matter of fact, the late Lord Haldane adumbrated a proposal to make the British troops in India a charge on the Imperial

[5] *Cf.* "Who profited by it [the conquest]? The answer must be, English commerce has profited by it. We have here a great foreign trade, which may grow to be enormous, and this trade is secured to us so long as we are masters of the Government of India."—Seeley: *The Expansion of England* (1884), p. 253.

revenues alone, the India Government contributing her own proper share".—*Triveni* (1930).

III—MERCENARY ARMY *vs.* NATIONAL ARMY.

The question of military expenditure to be borne by Indian revenues however in its ultimate analysis, centres round the fundamental problem of a mercenary army *vs.* a national army as being necessary for the defence of India. The British Bureaucracy has, ever since the days of Clive, been familiar with the merits of a mercenary army which brought India under the British Crown. Seeley thus writes:

"No one, who has remarked the childish eagerness with which historians indulge their national vanity, will be surprised to find that our British writers in describing these battles seem unable to discern the sepoys. Read Macaulay's *Essay on Clive*; everywhere it is 'the imperial people', 'the mighty children of the sea,' 'none could resist Clive and his Englishmen.' But if once it is admitted that the sepoys always outnumbered the English, and that they kept pace with the English in efficiency as soldiers, the whole theory which attributes our successes to an immeasurable natural superiority in valour falls to the ground.

* * * * *

"India can hardly be said to have been conquered at all by foreigners; she has rather conquered herself.

* * * * *

"India has been conquered by an army of which four-fifths were natives and only one-fifth English.

"For mercenary armies were everywhere; they were at the service of every one who could pay them or win an influence over them; and any one who commanded a mercenary army was on a level with the greatest potentates of India, since in the dissolution of authority the only force left was military force.

"I showed you that of the army which won our victories four-fifths consisted of native troops. That we were able to hire these native troops for service in India, was due to the

fact that *the feeling of nationality had no existence there.* Now if the feeling of a common nationality began to exist there only feebly, if, without inspiring any active desire to drive out the foreigner, it only created a notion that it was shameful to assist him in maintaining his dominion, from that day almost our Empire would cease to exist.

"And thus the mystic halo of *marvel* and *miracle* which has gathered round this Empire disappears before a fixed scrutiny. . . . The love of independence presupposes political consciousness. Where this is wanting, a foreign Government will be regarded passively, and such a Government may continue for a long time and prosper without exerting any extraordinary skill."

The army policy of the British rulers of India has necessarily been governed by a complete mistrust of those sections of the people in whom there has been the faintest dawn of political consciousness.

"The policy persisted in by the Government was thus described and criticized by Sir K. G. Gupta:

"When the English first secured the sovereignty of India there was a National Army in all the provinces, officered by Indians who usually came from the land-holding and middle classes, whose interest it was to keep up the martial spirit among their tenants and neighbours. But the British policy has, from the very commencement, been to deprive Indians of all authority in the Army, and recruitment has been confined to the rank and non-commissioned officers.

"As the British power and territories increased, even this limited recruitment for the Army was taken away from province to province, until at present it consists of Sikhs and a few other tribes; but a very considerable part of it is made up of Pathans who come from beyond the N. W. Frontier and of Gurkhas who inhabit Nepal, and are thus not even British subjects and are mere mercenaries.

"Yet when Clive won the battle of Plassey and Wellesley vanquished the Mahrattas, no Sikhs or Gurkhas entered the composition of the Indian Army. The absolute exclusion of the middle classes from all positions of command has taken away all incentive to foster the martial spirit, with the result that the field for recruitment has been gradually narrowing down, so that the Indian Army must needs seek for recruits outside the bounds of British India. One may almost exclaim that the *Pax Britannica* of which so much is made in certain quarters has been

the greatest drawback of British rule in India, for it has effectually emasculated the whole nation and has made it incapable of doing anything in self-defence."

"The division of the people into martial and non-martial races is artificial and unreasonable and must be ascribed to the decision of the authorities to exclude some races from military service and the development of the martial spirit for reasons other than efficiency. The exclusion of Bengalis from the Army has always been resented by them. The well-known remarks of Bishop Heber, Lord Bishop of Calcutta, would bear repetition :

"I have, indeed, understood from many quarters, that the Bengalees are regarded as the greatest cowards in India; and that partly owing to this reputation, and partly to their inferior size, the Sepoy regiments are always recruited from Behar and the Upper provinces. Yet that little army with which Lord Clive did such wonders, was chiefly raised from Bengal. So much are all men the creatures of circumstance and training."—*The A. B. Patrika,* March 29, 1934.

"In reply to a question put in the Legislative Assembly in 1921 the Finance Member said that out of the total expenditure in India, including that of the provinces, 33⅓ per cent. was for defence,[6] 11¾ per cent. for sinking fund and interest charges on the national debt, 4 per cent. for education and ¾ per cent. for sanitation. The total expenditure then amounted to 127.60 crores. To-day it is not more than 115.10 crores. It was found at that time that even countries which paid out of their plenty did not pay as much as India which had to pay out of her poverty. What we have said will be evident from the following :—

(1) Even a rich country like England did not spend more than 20 per cent. of its total expenditure on defence (army, navy and air force).
(2) Canada did not spend more than 11 per cent.
(3) The expenditure of South Africa on this account did not exceed 8 per cent.
(4) Portugal spent 20 per cent.
(5) Norway spent 11 per cent.

[6] If only the "Central" revenue be considered it is nearly 50%.

While poor India had to spend 33 per cent. and that too in peace time! The situation is the same to-day and military expenditure sits on the chest of the country like an incubus from which she cannot escape till the whole policy is changed. Reams of hiccoughing platitudes lodged in the pigeon-holes of the Military Department will not change the actual state of affairs; and no amount of jugglery with figures will release from this item of expenditure the money that is urgently required to accomplish developments in various departments which alone can herald the dawn of a new day for India."—*The A. B. Patrika,* March 3, 1934.

IV—MILITARY EXPENDITURE IN INDIA AND ELSEWHERE.

In India, "large masses are submerged below a poverty line which lies far deeper than in any other country of the world except China."

When we look round to find some way out of the deadlock, we find Sir Walter Layton's statement that the present military expenditure of India is so large both absolutely and in relation to the revenue of India as to be a dominating factor in India's financial situation.

Briefly stated the situation is this that at present more than 50 per cent. of the federal income is earmarked for military expenditure. The budget can only be balanced by the inclusion of revenues which accrue in the Provinces and which, it is admitted in principle, must sooner or later be completely surrendered to the Provinces. Without those revenues the federal budget would now be in serious default.

India, in spite of her poverty, has to bear a burden relatively heavier than that of Great Britain and ten times heavier than that of Australia, which has no land frontiers and is protected by the British Navy. Her expenditure on the Army has risen from £20 millions before the war to £41 millions at the present day.

Fear of Russian Aggression.

"Is the fear of Russian military aggression well founded, or is this a traditional bogey which in the modern world can

be seen to be a manifest absurdity? East and West the whole world is now politically conscious, and the old methods of imperial aggrandizement by invasion and conquest belong to an older dispensation which has passed away. No sane Government now a days will be guilty of the folly of attempting the forcible annexation and absorption of alien and unwilling populations."—F. G. Pratt, C.S.I., I.C.S. (retired), formerly Commissioner of the Northern Division, Bombay Presidency, quoted in *The A. B. Patrika*, 30th January, 1933.

V—Indianisation and Retrenchment.

Mr. H. Gray wrote thus in the London *Daily News* when the Inchcape Committee set about its work of exploring avenues of retrenchment in India:

"The most live question in India at the moment is the demand for a national army. . . . The last two Budgets, with their enormous deficits, have made her realise how ill she can afford to pay for the costly British garrison. Military expenditure hangs like a mill-stone round her neck stultifying the promise of the new Parliaments, blocking every avenue towards nation-building.

"India demands control of military expenditure and the 'Indianisation' of the army as a proof of our *bona fides*. Till Britain makes a substantial reduction in the cost of the British garrison and recruits Indian officers on a more liberal scale, India will not believe that we really intend her to become self-governing. She points out that her heart is set not on conquest, but on such things as compulsory education, industrial development, better roads and railways, and that all her pet schemes are abortive for want of funds."

Unless and until the expenditure on the Army is decreased no scheme of nation-building can be given effect to—nothing can be done to augment the economic resources of the country. Mr. Gray put the matter concisely when he said:

"While India is clamouring for more rice in every hut, cheaper water in every canal, more earls for every bride, more schools for every boy, England is maintaining British battalions each of which costs 21¼ lakhs per annum compared with 5 lakhs for an Indian battalion, and has enormously increased the numbers of headquarters and divisional staffs. There is an insistent demand, both within and without the Legislatures, for a reduction in the number of 'brass hats' for a gift of at least

25 per cent. of the King's Commissions to Indians every year, for free admission of Indians to the Navy and Air Force, and generally for the development of every path by which Indians may learn to take an honourable part in the defence of their country. In fact, India will only consent to pay for an army if she sees it gradually becoming an entirely Indian army. . . . After all it is natural for the nationally conscious to wish to defend their nation."

"Substantial 'Indianisation' of the Army will gratify not only the retrenching, but also the reforming instincts of the people. The error of years may not be rectified at once. It may not be rectified at once, it may not be possible to replace all British soldiers and officers within a short time; but a policy which will be instrumental in attaining this consummation must be adopted. Above all that mentality which makes man 'build his trust on reeking tube and iron shard' and leave out of his calculation the invincible soul of man, should be changed"—*The A. B. Patrika*, April 10, 1934.

Chesney thus wrote in 1868 on the status of Indians in the army of India (*Indian Polity*):

"A non-commissioned officer is superior to a private sepoy, and a commissioned to a non-commissioned officer; but a European sergeant, when attached to a native regiment, is superior to both, and there is an immeasurable distance between the oldest subadar and the youngest subaltern.

"As to the supposed incapacity of natives for war, such an opinion is sufficiently refuted by a mere reference to history. No brilliant soldier has appeared under the British colours, because our system rendered such a phenomenon impossible;[1] but Indian history abounds in instances of brilliant native

[1] Contrast this policy with that of Aurangzib, said to be the most anti-Hindu of the Moghul Emperors.

"On his birthday, 30th September, 1664, the Emperor (Aurangzib) appointed Mirza Rajah Jai Singh to put down Shivaji. Under him were deputed Dilir Khan, Daud Khan Qureshi, Rajah Rai Singh Sisodia, Ihtisham Khan Shaikhzada, Qubad Khan, Rajah Sujan Singh Bundela, Kirat Singh (a son of Jai Singh), Mulla Yahia Navaiyat (a Bijapuri noble who had come over to the Mughals), and many other officers, with 14,000 troopers.

generalship, displayed by men who, if their warfare was rude, were at least vastly superior to their times and to the men around them. This is a true test of genius."

Half a century ago, I wrote thus:—

"When on a recent occasion the flower of the Indian youth approached the Viceregal throne with a prayer that they might be allowed to bear arms in the service of their sovereign and country, they met with a cold rebuff. It is no doubt thought that, if the Indian is enrolled to-day as a volunteer, he will to-morrow demand a commission and an honourable career in the army. The blind selfishness, the arrogance, the superciliousness and the overweening conceit of the dominant race, cannot tolerate that the sons of the Indian nobility and gentry should even be relieved from the ban of excommunication. Sir John Kaye has quoted Bacon's well-known aphorism, in which the philosopher points out the constant risk a governing caste has to run when it depends upon mercenaries for the preservation of its power. Imitate the policy of the Mogul emperors; throw open the military career to the *élite* of the Indian empire, and you only conduce to its stability. Professor Seeley has very well said that India hangs like a mill-

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"Jai Singh's career had been one of undimmed brilliancy from the day when he, an orphan of twelve, had received his first appointment in the Mughal army (1617). Since then he had fought under the imperial banner in every part of the empire,—from Balkh in Central Asia to Bijapur in the Deccan, from Qandahar in the west to Mujgir in the east. Hardly a year had passed during the long reign of Shah Jahan when this Rajput chieftain had not seen active service somewhere and received some promotion for conspicuous merit. His marked ability had found recognition in his being given the command of the Van or one of the wings in the Mughal armies led by princes of the blood in campaigns beyond India. Latterly he had commanded in chief. In diplomacy he had attained to a success surpassing even his victories in the field. Wherever there was a difficult or delicate work to be done, the Emperor had only to turn to Jai Singh. A man of infinite tact and patience, an adept in the ceremonious courtesy of the Muslims, a master of Turki and Persian, besides Urdu and the Rajput dialect, he was an ideal leader of the composite army of Afghan and Turks, Rajputs and Hindusthanis, that followed the crescent banner of the sovereign of Delhi."—J. N. Sarkar: *History of Aurangzib.*

stone round the neck of England. At a critical moment she may know to her bitter cost what it is to coop up a large portion of her army in a distant land. There was a time when Britain too enjoyed *pax Romana*, but her inhabitants had become so degenerate as to forget the use of arms. When the Emperor Honorius withdrew his legions, when danger nearer home threatened Rome, we all know in what a sorry plight the Britons were left. The insidious policy which England has been pursuing in India is replete with danger."—*India*.

The progress of Indianisation of the army is even now imperceptible. No doubt a military college has been opened at Dehra Dun and a start has been made in the Indianisation of eight units. A member of the assembly declared sometime ago that at this pace complete Indianisation would take five centuries! Moreover most invidious distinction has been made between cadets trained here and those at Sandhurst.

Trust begets trust as distrust is the parent of distrust. The Great Akbar who built the Mogul Empire on solid foundations pursued this bold policy and was richly rewarded. His erstwhile enemies, the Hindu princes, became the pillars of his throne. The history of Scottish Highlands was disfigured by frequent rebellions till the middle of the eighteenth century. The Elder Pitt conceived the bold policy of opening honourable careers for the Highland youth in the British Army and the result has been that the British flag has been carried to the remotest corner of the earth by the Highland regiments. Who can say that the terrorist activities in Bengal do not spring from similar causes and will not yield to similar treatment! Who will deny that the surest means of keeping India in the British Commonwealth is to let her have her full stature helped but not hindered by the British people.

CHAPTER X.

Orgy of Extravagance.

"Let the Hon. Gentlemen imagine a government like that in India, over which the payers of the taxes have not the slightest control; for the great body of the people in India have, as we all know, no control in any way over the government. Neither is there any independent English opinion that has any control over the government, the only opinions being those of the government itself, or those of the Military and Civil Services, and chiefly of the latter. They are not the payers of the taxes; they are the spenders and the enjoyers of the taxes, and therefore the government is in the most of unfortunate position possible for the fulfilment of the great duties that must develop upon every wise and just government. The civil service, being privileged, is arrogant, and I had almost said tyrannous, ... and the military service, which, as everywhere else where it is not checked by the resolution of the tax-payers and civilians, is clamorous and insatiable for greater expenditure."—John Bright.

"India is in the unfortunate position, that an increasing portion of her revenue, now amounting to one-third, is spent in England."—Henry Fawcett: *Political Economy* (1883).

He who pays the piper commands the tune is usually considered a trite saying. In India it is true that we have the "Assembly" at Delhi, with a "Speaker" or President. It is, however, at best a toy parliament, where the members, the so-called representatives of the people, are welcome to indulge in mock debates over the salt tax, the military expenditure, and so forth. But the Viceroy by his power of certification makes short work of the resolutions passed even by an overwhelming majority. Sometimes even a Viceroy in a moment of despair unburdens himself to the effect that he is utterly helpless in effecting economy.[1] Whenever he tries to apply the retrenchment axe, the civil and the

[1] "The waste of public money is great . . . . I have only one object in all I do; I believe we have not done our duty to the people of this land. Millions have been spent on the conquering race, which might have been spent in enriching and elevating the children of the soil . . . .

military services raise a hue and cry and attack him more or less openly. Nearly fifty years ago I wrote: "Vested interests thrive in India with the rank luxuriance of a tropical climate. . . . An outlay once sanctioned is sure to become a permanent drain on the treasury ; an office once created is sure to become petrified, gathering accretions in the course of time, even though the necessity for both has ceased to exist."—*India* (1886).

Since the assumption of the title of Empress of India by Queen Victoria many a Viceroy of India has been seized with the mania of playing the role of the Great Mogul, deaf to all considerations of humanity. The year 1877 is memorable in the annals of modern India for more than one reason. In that year a terrible famine raged in the Madras Presidency and swept off five millions of people, and that very year was chosen for the celebration of the ceremony which affixed to the diadem of the Queen the proud title of *India Imperatrix*. The graphic description of the situation by Aberigh-Mackay has become almost classical. I cannot do better than quote a few lines here: "I missed two people at the Delhi Assemblage of 1877. All the gram-fed secretaries and most of the alcoholic chiefs were there ; but the famine-haunted villager and the delirium-shattered, opium-eating Chinaman[2] who had to pay the bill, were not present. When our villager wants to realize a political idea, he dies of famine. You will ask, 'What has all this talk of food and famine to do with the villager?' I reply, 'Everything.' Famine is the horizon of the Indian villager ; insufficient food is the foreground. Amid this easeful and luscious splendour the villager labours and starves.

"Reams of hiccoughing platitudes lodged in the pigeon-holes of the Home Office by all the gentlemen clerks and gentlemen

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It is impossible, unless we spend less on 'interests', and more on the people . . . . The welfare of the people of India is our primary object. If we are not here for their good, we should not be here at all." —The Earl of Mayo.

[2] In those days, the Chinaman by swallowing Indian opium used to contribute some six or seven crores of rupees to the Indian exchequer.

farmers of the world cannot mend this. While the Indian villager has to maintain the glorious phantasmagoria of an Imperial policy, while he has to support legions of scarlet soldiers, golden chuprassies, purple politicals, and green commissions, he must remain the hunger-stricken, overdriven phantom he is."

I—Construction of New Delhi.

Dr. Will Durant, one of the ablest and most discerning of the representative American intellectuals, and a former Professor of Philosophy at Columbia University, has just returned home from six months' visit to India. He has travelled here with both open eyes and an open mind. Speaking of the waste of public money for creating a New Delhi he observes: "Taxes were never as high in India as they are now. In the midst of heart-breaking poverty the government treats itself, at the cost of thousands of dispossessions, to new governmental buildings at Delhi,[1] whose cost is staggering, and whose alien style is not only out of place, but almost an insult to the greatest builders since the Egyptians. Seven months of every twelve it transfers the capital, all its personnel and machinery, to vacation resorts in the mountains at an expense of many millions of dollars. From time to time it holds gorgeous Durbars, to overawe the people who pay for the ceremony tens of millions. The result is a stupendous national debt, which

[1] The Viceroy's house stands in the midst of an estate of 330 acres. Its construction absorbed 4½ million bricks, nearly 1½ million cubic feet of stone, 7,500 tons of cement and 1,350 tons of iron and steel. It possesses 340 rooms, 1½ miles of corridors, 227 columns, 35 loggias, 37 fountains, 14 lifts and 300 telephones; the electrical installation cost ten lakhs of rupees; it is provided with a complete water-supply system and sanitary installation, an electrically equipped kitchen and a refrigerating plant—altogether a very remarkable achievement for little over eight years.

An American friend of mine writes to me:

"A wealthy American business man with whom I visited New Delhi last January said, he regarded the buildings as among the ugliest architecturally he had seen in any national capital. I, myself, have seen New Delhi in the background with the miserable hovels of the workers in the foreground: and I can never forget the picture!"

has increased from 7 million pounds in 1792 to 307 millions in 1913.[4] This alone clinches the whole Indian case. It pays to be free."

When the scheme of the construction of the new capital at the unhealthy sandheaps of Delhi was first mooted in 1912 it was given out that the total cost would not exceed five or six crores of rupees. The expenditure has, however, now run up to sixteen crores and it is feared that it may even mount up to thirty crores. Herein lies the explanation as to why the Government of India "swoops down and carries off the booty in its mighty talons" in the shape of the unrighteous Meston Award. Bengal is sadly in need of money for primary education, sanitation and irrigation as pointed out in previous chapters; but these measures must be postponed in favour of the grandiose symbol of an Imperial policy. Disease born of ignorance and poverty may decimate the masses but the pompous pageant must have precedence in order to strike the imagination of the oriental and extort the admiration of the American globe-trotter and the travelling M.P., who are struck with this outward manifestation of the "Wealth of Ind" and are inclined to burst forth: *"C'est magnifique"*! The superficial observer forgets that behind the gorgeous show there stalk in the land hunger and poverty.[5]

Towards the end of the seventeenth century a French King brought his fair country to the verge of ruin. It is sad to

[4] At present it stands at Rs. 1,210 crores according to Sir Samuel Hoare.

[5] It is but fair to add that every American tourist is not a globe-trotter. There are now and then keen observers, like Upton Close. *Cf.* "We are just in time to attend the Chamber of Princes at Delhi on the gracious invitation of the Secretary on Political Affairs. This unique legislative body combines the pageantry of oriental power with Roberts' 'Rules of Order.' Under the grave Viceroy, Lord Irwin, sit the members in their cloth of gold and jewels, everyone a sovereign in his own right and in addition a millionaire (only the cream of the seven hundred Maharajahs and Chiefs can belong), and fritter away their time passing in sincere compliments. As they drive up in bejewelled Rolls-Royces (one in a solid silver chassis) *we think of their subjects, the most destitute people we have seen"* (the italics are mine). —*The Revolt of Asia*, pp. 43-44.

reflect that in the third decade of the twentieth century the British rulers are emulating the pernicious example of Louis XIV. "Of the residences of the French Kings none stood in a more salubrious air or commanded a fairer prospect. . . . . Soon, however, the magnificent King conceived an inexplicable disgust for his birth-place. He quitted Saint Germaine for Versailles, and expended sums almost fabulous in the vain attempt to create a paradise on a spot singularly sterile and unwholesome, all sand or mud, without wood, without water, and without game."[6] "Towards the end of that decade (1682), 36,000 men were employed on the buildings and the park and the permanent population of the palace and its dependents numbered 10,000. . . . . It has been reckoned that in 50 years, the equivalent of £16,000,000 was spent on Versailles, the Triaon and lesser palaces."[7] Another authority states "that 20 million pounds were spent on the palace, gardens and works of art, the accounts for which were destroyed by the king."

Buckle has depicted in his masterly style the miseries and destitution of the people which followed in the wake of the pomp and extravagance of the *"grand monarque."* The Historian of Civilization quotes eminent English authorities, among others Locke and Sir William Temple, who bear testimony to the forlorn position of that noble country (France): "The French peasantry are wholly dispirited by labour and want. In 1691, another observer, proceeding from Calais, writes, 'From hence, travelling to Paris, there was opportunity enough to observe what a prodigious state of poverty the ambition and absoluteness of a tyrant can reduce an opulent and fertile country to. There were visible all the marks and signs of a growing misfortune ; all the dismal indications of an overwhelming calamity. The fields were uncultivated, the villages unpeopled, the houses drooping to decay.'

"I have known in France poor people to sell their beds, and lie upon straw ; sell their pots, kettles, and all their neces-

[6] Macaulay : *History of England.*

[7] G. H. Perris in the *Daily Chronicle* quoted in *The Bengalee*, May 30, 1919.

sary household goods, to content the unmerciful collectors of the king's taxes."

Waste and extravagance are writ large on the policy of our rulers. One would have derived some consolation if they had stopped short at squandering the vast resources of the land; but they are setting a pernicious example to the Feudatories as well. Thus we read: "The Nizam's red and white sandstone palace in New Delhi designed by Sir F. Lutyens which is nearly completed will cost £157,500," says a message in *The Evening News*. "Its plan resembles a bird with outstretched wings. The palace took four years to build. The Hyderabad State Budget provides for the expenditure of £48,700 for furnishing and decorating. Throughout the 24 reception rooms and 101 bed rooms Italian marble has been used. Tenders for decorating and furnishing the palace are now being considered from English and Indian firms. Despite the size of the palace it will not accommodate the Nizam's huge retinue." Needless to say the lesser Chiefs will not be slow to emulate His Exalted Highness.

Poverty and destitution encounter the eye of every discerning observer in and around Bombay, Calcutta, Delhi and other cities. A discriminating observer, by no means a globe-trotter, thus records his considered opinion: "India is to-day nothing but a poor beggar!" That is the verdict of a German author who enjoys an international reputation and who had been specially sent to oriental countries by an influential German newspaper, *Berliner Tageblatt*, "to report on the social and economic conditions of the people in the various Asiatic countries."

"Bernard Kellermann, for that is the name of the German author, has seen India as it is to-day. He has observed the most astonishing juxta-position in the economic condition of India, extreme poverty and gorgeous riches, squalid huts and palatial buildings flourishing side by side. He has seen 'the Calcutta harbours with docks and forests of chimneys, the wonderful Howrah Bridge with traffic night and day with its thousand autos, lorries, buffalo-carts', but he has observed also

something more. Hidden behind all these splendours of 'British' India Bernard Kellermann has easily discovered 'the impoverished and humiliated India', and this he has characterised as 'true India.' But such was not certainly India when 'gold of Ormuz and Ind' lured the foreigners and induced them to fight one another to secure political and commercial supremacy in India. 'True India', even a century and a half ago, was the India whose riches exploited and carried to England brought about the industrial revolution in Britain and opened a new chapter in her economic and political history. To-day out of the 570 million pounds sterling invested in India, 470 millions on English railways, banks, electric power stations, tramways, water-works, mines, petroleum, rubber, coffee, tea—everything in one word three-fourths of all this is concentrated in English hands and the yield of the capital invested pours into the pockets of Englishmen abroad.' To safeguard the vested interests of foreign capitalists the 'Indian beggar' has to pay more than fifty crores of rupees as military expenditure and has to maintain the 'steel frame' Services. And when 'beggars' in India demand that they should have a voice in the administration of the affairs of their country, the representatives of vested interests quietly tell them that India is unfit for Self-Government because 'there are millions of beggars' in the country!"—*The Forward*, October 13, 1928.

II—India—A Land of Contrast.

"When the Prime Minister leaves Downing Street for a few weeks and shelters at Lossiemouth, there are complaints that the business of the country cannot properly be conducted by despatch and telegram and that such remoteness from the centre of affairs is bound to lead to inefficiency.

What would be said if the whole of Whitehall and the Cabinet, all the secretaries to secretaries, the Civil Service, except for a very junior handful, and endless truckloads of files and papers were solemnly transplanted in the wake of the Prime Minister, and established round about the Moray Firth for some seven or eight months?

For this is what happens in India—in fact what is happening now. The Government of India is moving to Simla and the Provincial Governments are moving to their respective hill-stations.

It is no use, just now, expecting an answer to an awkward question, or seeking higher guidance on a matter of delicate policy.

The correct answer is locked away in a great ant-proof metal box, carefully sealed and plastered with white paint blazoning the Department to which it belongs.

It is in charge of an imposing gilt and red clad 'chaprassi', who is shivering at the change of climate at the foot-hills, and who presently will fight with a host of other 'chaprasis' as they sort out the secrets of the British Raj and transfer them at Kalka junction to the narrow gauge railway which coils and winds and climbs through one hundred and one tunnels to the Olympian heights of Simla.

And even then—when the precious box is deposited in its hot weather home—it will be some time before the officials find where the appropriate file is; and meanwhile India must wait.

The theory is, of course, that it is too hot in the plains and in the Provincial capitals for the heaven-born to function properly. The curious thing is that the more senior you are in Government service the more does this apply. Juniors and subordinates (Anglo-Indians) and, of course, the Indian himself, get on all right. Bankers, box-wallahs and the odds and ends of commerce can, and do, sizzle in 115 degrees in the shade. Every Englishwoman (above a certain income) must go to the hills or home. Even the Army has its hill stations, and companions take it in turns to gaze on the snow-clad Himalayas.

These hill stations are a triumph of engineering and perseverance. Their height varies from 5,000 to 9,000 feet, and in some cases everything has to be carried up on the backs of asthmatic coolies.

The views are superb. The air exhilarating and the society charming. Hither gather the grass widows of India and the unmarried known as the 'fishing fleet'.

Hither fly the young officers on leave and the young civilians. The Princes have elaborate pied a terre and princelings abound. The Indian legislator brings his wife and emancipated daughters. The Viceroy entertains lavishly, mixing his guests judiciously . . . and all the time, away to the south, stretches the vast sub-continent, seething with unrest and discontent. A land of contrast; pomp here, poverty there.

India seems strangely remote in Simla. The Government conceals its iron hand in the most delicate of fawn gloves. Members of the Viceroy's Council do most of their business—pleasant and unpleasant—in their own bungalows.

Only occasionally along the Mall a ripple of doffed topees and a splash of feminine smiles will signify the passing of the rickshaw of of the Truly Great. There he sits, cool and confident in a natty 'white' topee, pushed and pulled by his smartly uniformed coolies.

For only the Viceroy and the Commander-in-chief may use a motor-car in the hill capital. Gandhi refused to be propelled by his fellow human beings, and always walked.

And when the rains pour down and beat endless tatoos on the corrugated iron roofs, Simla is sometimes more remote than ever. Down come the wires, and the Governors of the country can mediate undisturbed by the intrusion of awkward facts.

New Delhi.

New Delhi—that colossal monument of bureaucratic waste—was built to house the Government of India—at a total cost of nearly £17,000,000.

There you find officials with rooms like tennis lawns and vast Lutyens vistas. All around are the winter homes of the bureaucracy, arranged according to salary. There is a five-thousand rupee avenue, a four-thousand rupee road, and so on.

This new Secretariat, already found too small, was to be the permanent home of the Central Government. After it was built, its walls were ripped out to instal hot and cold water control of temperature. But even that did not prevent the yearly exodus. For the greater part of the New Delhi is as deserted as any of the old cities that are scattered on that historic ridge.

The waste in money is, of course, terrific. Officials have to keep two houses, and transportation costs soar high. Delay in transacting business provides another source of waste.

Delhi is remote enough. Simla is another 24 hours away. The telegraph cannot fill the gap—it is still an eccentric factor in India.

And, on top of all this, is the widespread discontent and irritation which fills the country yearly as the people doing the work in the heat think about their directors in the cool.

Twice a Year.

Twice a year the Government is in transition; as it goes up and then down. Every morning now at Kalka, long, heavy trains disgorge hosts of children, ayahs, and memsahibs, who stride the platform possessively shouting instructions in grammarless vernacular to the host of servants, who know exactly what to do. The station is almost hidden with baggage.

Presently the little hill train is loaded up. The ayahs slyly look round and pull their blankets round them, for the wind comes straight off the eternal snows.

The children will soon be sick and frightened at the great precipices yawning at either side. The female side of the Raj takes stock of old and new faces. And another Simla season has begun.

Meanwhile, back somewhere, limping slowly towards the foot-hills, a burdened, often-hunted, now-hurrying goods train brings the files with the the right answers and the correct evasions.

Farther back some district official watches the baking plains and anxiously opens telegrams, seeking for guidance and help. And farther away still the India Office and the Secretary of State for India have the time of their lives with their private, personal and confidential telegrams to the Governor-General.

For he, poor man, is also moving, hovering perhaps at Dehra Dun, halfway towards his mountain home. He has probably only one member of his Council available—the rest are 'touring'—that is, paying visits to pleasant, interesting and historical parts of India, in nice cool 72½ foot saloon carriages.

Even a Viceroy does not always know the answers. And it will be weeks before the boxes are unpacked, the papers sorted and the precedents found.

Multiply this state of affairs seven or eight times, and you have a tolerably accurate picture of Indian Government twice a year."—Frederick Atherton: *Daily Herald.*

III—Salaries in India and Elsewhere.

This is not the place to review the present policy of our Government. The one outstanding feature is that in its scheme the dumb, voiceless masses, who are the real contributors of the revenue, bulk nowhere. It is a scramble for the division of the spoils. The Prime Minister of England gets £5,000 a year and his colleagues from £5,000 to £2,000.[8] In the United States the salary of a Cabinet Minister is not more than 12,000 dollars (*i.e.*, Rs. 36,000 approximately) while the Japanese

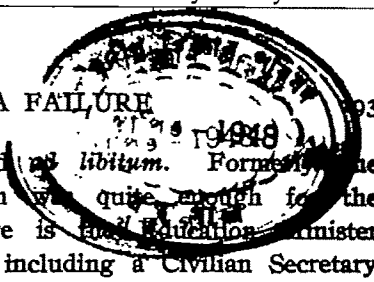
[8] *Cf.* "I was a much poorer man when I left office than when I entered. The office of Prime Minister, if it is to be properly discharged, cannot I think, be discharged, unless a man has private means of his own, on a salary of £5,000 a year. He has a number of duties, if he is to perform his office properly, of entertaining and affording hospitality to all sorts and conditions of people, both at home and abroad, which, under the existing arrangement, he has to defray entirely at his own cost."—Oxford and Asquith: *Fifty Years of Parliament*, ii, p. 202.

The Prime Minister of England on account of the heavy strain on his purse has recently been allowed an additional £2,000; but his colleagues have to be contented with their present emoluments. Moreover, in England a much heavier income tax has to be paid and the *actual* salary is thus considerably reduced.

Prime Minister is allowed 12,000 yen annually and cabinet ministers 8,000 each. Formerly one Lt. Governor was sufficient for the provinces of Bengal (including Assam), Behar and Orissa. Now three separate provinces have been carved out. The bureaucracy knows well how to set the ball rolling. A few noisy selfish place-hunters are taken under its wings ; these set up a cry "Assam for the Assamese", "Burma for the Burmans", "Orissa for the Orias", and so on. Half a dozen grasshoppers create a great noise while, as Burke says, the stately bull browsing under the giant oak keeps quiet.* It is argued in justification of the creation of the new province that the area is vast and unwieldy and therefore the out-lying provinces receive but scant attention ; moreover, whenever any local disturbances arise it is difficult to control them from a centre removed far off. It is however conveniently ignored that the means of communication by railway and steamers have practically abridged distance ; there is scarcely any head-quarter of a province which cannot be reached within 12 hours. Again, the latest developments in wireless telegraphy and aviation have reduced political dangers to a minimum. The fact is that the bureaucracy is ever on the alert for increase of posts and emoluments. There are now in Bengal alone four Executive Councillors and three Ministers—seven in all, each with a retinue of large and costly staffs—each drawing Rs. 64,000 a year, *i.e.* approximately the pay of the Prime Minister of England. The Commercial Editor of the *Ananda Bazar Patrika* estimates that the cost of general administration in the provinces and in the centre has risen from about 4 crores of rupees in 1920 to about 14 crores in 1930-31. Under the white paper scheme it will rise to 25 crores.

* As shown elsewhere the Government estimate is always low :

"If you look at the figures, connected with the setting up of Provincial Autonomy, Sir Malcolm Hailey comes to a general conclusion that the expenditure involved, may be something between Rs. 6 and 8 crores. My Lord Chairman, that looks a very formidable figure; but let me pass from the provinces to the Federal Centre. I think you will find that the expenditure for the Federal Centre is a figure of about 2½ crores."—Sir Samuel Hoare at the Third Round Table Conference.



New posts have been created *ad libitum*. Formerly the Director of Public Instruction was quite enough for the whole of Bengal. Now there is a Education Minister with his costly paraphernalia, including a Civilian Secretary drawing a fat salary. The Director of Public Instruction again has got three assistant Directors and a Personal Assistant. The Commissioners of Divisions drawing Rs. 3,000 per month plus Rs. 250 as allowance have absolutely nothing to do; they are simply "post offices" or conduit pipes for keeping the district Magistrates and Collectors in communication with the Executive Councillors and Ministers as also the Board of Revenue. The Inspector General of Police is assisted by six Deputy Inspectors. In fact posts have of late years, especially since the inauguration of the "Montford" reforms, been recklessly multiplied both in the Provincial and Imperial branches, and many new departments have sprung into existence, which are so many nests of sinecurists.[10]

Diarchy has been pronounced to be not only a costly affair but a failure; even the moderates, who were at one time jubilant and accepted office with high expectations, have found it unworkable and have not hesitated to pronounce their funeral dirge over it. Men with a spark of patriotism have fought shy of it. But successive Governors of Bengal as also of other provinces are determined not to feel the national pulse, with the result that third rate men, who could not earn in their profession even Rs. 250 a month and who are ready to sell their birthright for the proverbial mess of pottage, have jumped to have a bite at these sops to the Cerberus. Some of the Bengal landlords—noodles and nincompoops, and thus

[10] *Cf.* "Thirty years ago when I was a member of the Bengal Council, I remember that the cost of administration of Bengal, Bihar and Orissa did not exceed five to six crores. Since Bihar and Orissa were separated from Bengal, the cost of administration of Bengal alone has been progressively increased to 11 to 12 crores of rupees. And for all that, have our education, sanitation, public health, and economic condition improved at all? I think that public opinion is agreed that the answer is an emphatic No."—J. Chaudhuri: *Presidential Address*, Calcutta Teachers' Conference, 1934.

mere tools in the hands of their civilian secretaries—have also been induced to accept office. The Governor of Bengal has evidently taken it into his head that by setting up these puppets he proves to demonstration that diarchy is a success and has thus put a premium on prostitution of public life to which pointed reference has been made elsewhere (p. 122). The mischief, however, does not end here ; since the increase of the emoluments of the civil and medical services by means of what has come to be known as the "Lee loot", the pay of the provincial executive and judicial services has been correspondingly increased so as to rob the Indians of the cry that it is only the *white* service which has been pampered. The poison has since then spread from the central to the peripheral regions. The I.C.S. and I.M.S. as being privileged have brought into existence another class of semi-privileged service, namely the I.E.S.[11] The members thereof also claim higher pay on the ground that judged by the intellectual attainments they are often of superior merit. Even among the Indians the cry is like that of the horse-leech's daughter: *"Give me more"*. One who gets Rs. 250 per month grumbles and envies the man with Rs. 500, the Rs. 500 man hankers after Rs. 750, the latter again thinks that he is a victim of gross injustice in that his academic qualifications are superior to the drawer of Rs. 1000 per month, who in his turn sees no reason why he should not get a lift to Rs. 1,250 and so on. I leave out of consideration the several other branches of public services, *e.g.*, the Police, the Forest, the Agriculture etc. The whole arrangement looks like the division of spoils by brigands in the wood. There is demoralisation all along the line as there is again a competition between the Hindu and the Moslem, between the high-caste office-seekers and those belonging to the so-called depressed classes. Of course, the

[11] *i.e.*, The Indian Educational Service.

As the Educational Service is now a 'transferred' service, *i.e.*, belonging to the Provinces, it is now designated according to the Provinces it belongs to. Thus B. E. S. is Bengal Educational Service.

claims of the dumb millions of peasants, the real producers of wealth, are coolly ignored and it is conveniently forgotten that the average income of an Indian is only £3 *a year* and that the maximum *monthly* pay in Soviet Russia is £22.

While revising this portion of the MS. for the press, I came across the diagnosis of the basic cause of discontent by an Englishman, who has evidently been watching the situation with a keen eye. An English friend writes:

"Seldom does it happen that the *Statesman* allows any statement to appear in its columns which can be interpreted as accusing the present form of Government in this country as being in any way responsible for the existing discontent. It was a surprise to me therefore to see in its columns recently a letter from an anonymous correspondent in which the true cause of discontent is recognised and plainly stated as follows :—

> 'The economic distress in the country is mainly due to the world-wide trade depression and acts of God over which human agencies have no control, and, on the top of that, sitting like an incubus, grinding and ever-increasing taxation. This huge taxation is resorted to to maintain a top-heavy administration for which this country has no need. Bengal, Behar and Orissa used to be governed—and governed well—by one Lieutenant-Governor with a few Secretaries and a small Legislative Council. In their place we have two Governors, any number of Executive Councillors, Ministers and Secretaries and two large Legislative Councils with their establishments, their Council Houses, the allowances of their members and so on and so forth, all costing mints and mints of money crushed out of the poor tax-payer. And what does the latter get in exchange? Better administration? No. More peace and content? Certainly not. He gets the proverbial "Horse's Egg." The Legislative Councils only afford opportunities to some showy people to spout forth for the benefit of some other admiring followers and to attempt to prove how clever they are and how they toil for the good of the country.'

"The defect of the British form of Government in this country is that it makes only for the welfare and prosperity of the few, while that of the mass of the people is comparatively disregarded. Those Indians who are taken on into the administration in its upper grades, whether civil or military, are extravagantly paid by reason of the example that the scale of salaries paid to Britishers sets, and the consequence is a form of Government costing at least four times what it should do, and principally benefitting, so far as Indians are concerned, not 5 per cent.

of their number; for it is a fact that such advantages as they get from the present form of administration could be and should be obtained at one-fourth the cost.[13]

"The mass of the people have now been educated up to recognizing this anomaly and are insistent that it shall no longer continue. If the Congress has been the educator, it has done a good work in taking the first step necessary for the removal of this wrong. In the trades union organisations and other federations of labour are to be seen evidence of only the beginning of the means which the people will gradually call into being for the removal of this basic cause of their discontent."—*The A. B. Patrika*, Aug. 30, 1931.

Anent this aspect of extravagance a well-informed writer in the *Statesman* (March 2, 1934) very appropriately observes:

"In asking the Central Legislature to take the case of Bengal into its special consideration, Sir George Schuster has laid down a special condition and that is that the Government and the legislature of Bengal will do all that may be found possible to help themselves and he concluded with the following significant words: 'Everything which I have to propose (for Bengal) is subject to this condition.' The question will therefore naturally arise if the Government and Legislature of Bengal are doing all that can be done to help themselves. The exact position in this connexion cannot be explained briefly yet it can be said safely that the legislature of Bengal did all it could but the Government did not. Two successive committees appointed at the instance of the Bengal Legislative Council to find out ways and means for retrenchment, recommended the curtailment of over two crores of rupees in the expenditure but the Government of Bengal has not seen its way to retrench even a quarter of the amount. The Swan Committee thought that the size of the Cabinet of the Governor

[13] "It may be mentioned that the salaries of the Malaya Civilians, as those in Ceylon, are much lower than those paid to members of the Indian Civil Service and yet these Civilians work with same zeal and loyalty as do members of the Indian Civil Service. Probably they do not know how to combine and agitate for higher salaries or other allowances, or perhaps they know that the Colonial Secretary is not half as generous as the Secretary of State for India is with Indian revenues." —Sir Lalubhai Samaldas: *My Impressions of Japan.*

could be reduced but the Government has decided that 'no action will be taken to reduce the size or the emoluments of the Cabinet pending the introduction of the new reforms.' As to the question of Hill exodus, the Government think that 'in these abnormal times when urgent matters which require the attention of the Government as a whole are so numerous it is not possible to abandon the second visit to Darjeeling.' Further 'it has been decided to make no reduction in the number of secretaries,' and 'no reduction in the number of Divisional Commissioners is considered practicable in the present condition.' So forth and so on. It is for the Government of India and the rest of the world to judge if the Government of Bengal is helping itself although the lines on which such help can be secured have been indicated by the Legislature of Bengal."

Recently we read that Herr Hitler refused to accept any pay or remuneration for his arduous duties as Chancellor ; he said that what he earned by writing books or contributing articles was enough for him. But our rapacious and greedy place-hunters set their face against the retrenchment recommendations as thereby their own exorbitant salaries will have to be cut down. The following statement on Italian economics may be presented as a glaring contrast.

"The Cabinet has approved of economies totalling 397,000,000 lire. This is the third of a series of measures which Signor Mussolini initiated towards reducing the 2,900,000,000 lire deficit for the year 1934-35.

"The first measure in January effected a saving of 900,000,000 lire through a conversion operation. The second measure of April saved 410,000,000 lire by cuts in State employees' salaries. The third measure will result in the ruthless combing out of possible economies in all Ministries."—*Reuter* (June 30, 1934.)[18]

[18] In Italy there is no waste and extravagance and no princely pay of Civil and Military servants and the interests of the rulers and the ruled are identical; hence root-and-branch curtailment of expenditure possible. *Cf.* "In the midst of all this trouble, which had looked like wrecking

IV—Princely Extravagance.

As I am sending this portion to the press, by a curious coincidence, I come across a remarkable delineation of the orgy of extravagance from an unexpected source—this time an Indian native prince.

The Rajputana Correspondent to the *Roy's Weekly* writes from Mt. Abu under date May 15, 1934:

"Well, you are face to face with a brute, a leper, an assassin—one who fleeces his subjects, tortures his prisoners, drives into his zenana all the lucky girls in his territory and forcibly sends for other people's wives—."

It is characteristic of His Highness that he seldom greets me without such outburst.

Then we came to grips with the subject of princely extravagance. His Highness emphasised the theory to which he is almost wedded, that the Indian Princes are but imitating the Ruling Power, that the moment the Rulers become Gandhi and Jawaharlal Nehru they will go in for loin cloth and the grass mat and "Chapatti' and 'dal' a day, just as, when the Muslim Emperors ruled they put their women in 'purdah', changed their 'dhoties' into Pyjamas and installed the tailor as a citizen because they wanted 'achkans.' "Have you seen the picture of Shri Ramchandra—in his 'dhoti' and with no shirt or turban on? These are all our homage to Muslim civilization—and our new palaces in which John Tinson of Delhi have installed sanitary fittings are all our homage to British Rule."

That is the simple way with the Maharajah Saheb, who is one of the best of men not because he is friendly to humble me in spite of all his pomp and power, but I have seldom talked with him without profiting myself.

"Been at any time in summer in New Delhi—Raisina—?" the Maharaja asked me. I said that though I had not been there in summer,

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Fascist stabilisation, a very remarkable piece of news was published. It was announced that the National Budget had not only been balanced, but that there was a surplus. At the time of the March on Rome (Oct. 1922) the Budget deficit was 15,760 million lire. In one year of reform that deficit was reduced to 3,028 million lire; by 1923-1924 the deficit had shrunk to 419 million lire. The 1924-1925 balance showed a surplus of 147 million lire. This apparent miracle was performed by Finance Minister, De Stefani, one of the most remarkable men in Mussolini's movement."—Ion S. Munro: *Through Fascism to World Power.*

I had a picture of the place from what the *Roy's Weekly* wrote: foxes running about in broad daylight where before live M. L. A.'s breathed fire and brimstone.

"Yes, but because M. L. A.'s have a hand in the pie, so that is not a crime—to waste crores and crores of rupees in the change of capital when that amount could have been used for lifting the agriculturists from the weight of agricultural indebtedness. You see, what you do is always just and natural and actuated by the best of motives; what your neighbour does is all wrong and mean and selfish."

And then we talked about the waste that is going on in the Government of India.

"Sir George Schuster can spend sixteen lakhs on a banking enquiry committee and there is not a whisper, simply, because Tom and Swamy are members and get allowance—but if I should go to London and spend a few lakhs, why, I am drinking the blood of my ryots! Who paid for these pleasure trips of the members of the committee to England? The prosperous civilian or the millionaire textile machinery owners? It is the half-starving, skeleton-looking, ghost-like agriculturist haunting the paddy field in British India. Remember that."

"We forget the origin of our argumentation—", he began with a smile, "and that is that whereas you are quiet if only you, politicians, are allowed to spend the poor agriculturist's money yourself, in company with the Englishmen, you are not prepared to allow to me the same failing or the same privilege, whatever you call it. You all write and speak against the Government exodus to the hills, but are anxious to proceed to Simla for the sittings of the Assembly. And you have no compunction to paying a nominal rent to your excellent house, built out of the blood of the agriculturists, whereas the poor clerk pay more than his percentage of the income for his miserable hut in some 'khud.' And the agriculturist himself, like Christ, has no place to put his head in. And yet if I build a palace which does not cost my ten years' revenue as New Delhi has cost, you must raise a hue and cry."

The high salaries of the members of the services—both Indian and European in a country where half the population lives on the verge of starvation, may with evident justification be contrasted with the conditions prevailing in other oriental countries.

"At none of the big Tokyo newspaper offices which I regularly visit have I ever found an editor or sub-editor absent except on duty, while the professors at schools and universities work for unbroken spells of seven hours daily, after which they often take extra classes. Neither do these men receive salaries larger in proportion to those of

manual labourers. A Japanese colonel is paid under Yen[14] 400 a month, a professor is lucky if he gets Yen 200, the salaries of government civil servants are ridiculously small. I was once talking to a clerk in the South Sea Islands administration, not a man in a high executive position but still one who had been through school and university, spoke fluent English and was married, who told me proudly that he was receiving Yen 110 monthly, for which wage he had to live in a bad tropical climate and often work after dinner."—*Labour and Wage Conditions in Japan To-day* by R. V. C. Bodley, reproduced in the *Statesman*, Feb. 25, 1934.

In the Universities of France, professors of high distinction have to be contented with remuneration not exceeding often times Rs. 500. China, since the Republican Government was set up in 1911, has been torn asunder by internal strife. All the sources of revenue are commandeered now by one war-lord and now by another, with the result that little or no money is available for educational purposes. But the students (see p. 118) and the professors have shown unique examples of self-abnegation. Let me cite one instance.

"There is a tremendous vitality in a people which can produce men of the types of the Chinese university professors of Peking who, when their salaries had not been paid for twenty-six months, continued teaching in the class rooms daily, and at night, in order to earn a meagre living, blackened their faces as a disguise and pulled rickshas in the cold windy streets in order to earn enough money with which to buy food."—Abend: *Tortured China*. p. 285.

The results of this extravagance—military and civil—in the Government of India are now patent to everybody. Sir John Megaw, late Director-General of the Medical Services of India, stated recently that only 40% of the people of India are able to obtain proper nourishing food. Debt has been piled upon debt like Pelion upon Ossa, until to-day the national debt stands at Rs. 1,200 crores approximately. No doubt some part of this debt has been used for productive purposes, *e.g.*, the construction of railways and canals. But here too, the interests of India have often been sacrificed for imperial purposes.

[14] 100 Yens=Rs. 76 at the current rate of exchange.

An account of discussion in connection with what is known as the "Waggon Scandal" in the Legislative Assembly at Delhi will be found illuminating.

"It was a day of heart burning for the Government in the Legislative Assembly, I may well say—a day of mourning. On the very first day of voting on the demand of budget grants on Railways the non-officials inflicted their first serious and telling defeat on the Government. The entire demand for the Railway Board was voted out by 59 against 52 on the motion of Mr. S. Srinivasa Iyengar. The Congress President appeared in his old familiar roll of a prosecutor. The only difference was that whereas in the old days he indicted public men on behalf of the Government, he now indicted the Government on behalf of the public. To my mind it was a marvellous performance. As Mr. Iyengar was developing his case against the Railway Board and their almost proverbial irresponsibility, the officials of the board including Sir Clement Hindley went purple with incontrollable rage. To add fuel to the fire, Pandit Motilal Nehru in his characteristic style of crushing sarcasm reminded Sir Clement Hindley how easily he had played with India's capital although he had known pretty well that the thirty thousand waggons he had purchased from England were not needed in India.

"A little later, Dr. Gour in a vehement speech explained the motive behind the scandalous purchase. Was it not unemployment time in England?—He asked. And the Government, he added, were out to relieve distress of British unemployment. Pandit Motilal also said that this step-motherly treatment accorded to Indian waggon industry had well-nigh landed it in disaster. . . . . 'You have squandered away 15 crores of public money and have killed the home industry in order to support the British industry.'

"Lala Lajpat Rai said: 'The railways in India had in view the interests of foreign trade, European merchants and, European and Anglo-Indian employees.' "—Feb. 23, 1927.

Needless to add that although the Government was defeated, the Viceroy by his power of certification carried his point. This is why the Assembly has come to be looked upon as a mock Parliament and puppet show.

V—Public Debt of India.

The manner in which a large portion of the unproductive debt has been saddled on the poor people of India forms one of the meanest chapters of the history of British rule in India. Facts have recently been brought to light which are worthy of careful consideration in this connection.

The Congress Select Committee, appointed by the Karachi Congress to scrutinise the report on the financial obligations between Great Britain and India, make the following unanimous recommendations:

"The present 'Public Debt' of India amounts to over Rs. 1100 crores. Taking into consideration the ever growing material and political gain to Great Britain as the result of possessing India, and in consideration of the suppression of Indian industries and talents, the Committee recommend that Great Britain should follow in dealing with India the precedent she set in releasing Ireland of her share to the National debt of the United Kingdom when Ireland was made a free State. Every principle of fair play now requires that if India is to start on a new era of National Self-Government, it should start freely and without any burden; if any progress is to be achieved at all India cannot afford to bear any additional taxation. The only posaibilities of progress for India therefore are the application of the national revenue to national purposes, and it is only by reducing the national expenditure on the civil and military administration of the country to suit its own requirements and free India from the liabilities for the public debts not incurred in her interests, that saving can be effected which could be applicable to the advancement of India in the matter of education and sanitation and other national means of regeneration."

"As regards the European War (1914-1918), claims under two heads are made:—(1) The return of the War 'Gifts' and (2) a share of the War Cost. The first claim amounting to Rs. 189 crores is made on two grounds:—

(*a*) That the Government of India, under the Statutes by which it is regulated had no power, whatsoever, to make a gift to Great Britain out of the revenues of India, and therefore the 'Gifts', being illegal transactions, should be returned.

(*b*) The amount was beyond the financial ability of the people of India and that India had contributed, apart from these financial 'Gifts', by way of men and materia! far in excess of the contribution of any of the Dominions (*cf.* Vol. I. p. 232).

The second claim in respect of part of the cost of the military operations amounts to Rs. 171 crores. This is arrived at by adopting as standard military expenditure the amount spent in the year 1914-15, and the excess over such standard between 1915-16 and 1920-21 is claimed.

Thus, under this head of 'External Wars', a claim of over Rs. 397 crores is made.

It is also pointed out that the 'public debt' in India is not a national debt, (for it is the result of acts of representatives of the British nation) as India had not even the 'shadow of a constitution.' "

The total claims are as follows:

Under the East India Company—		
External Wars	Rs. 35	crores.
Capital & Interest	37	,,
Cost of the Mutiny	40	,,
Under the British Crown—		
External Wars	37	,,
European War Gifts	189	,,
European War Costs	171	,,
Miscellaneous Charges	20	,,
Burma	82	,,
Reverse Council Losses	35	,,
Railways	83	,,
Grand Total	Rs. 729	crores.

The entire cost of suppressing the Indian Mutiny was thrown upon India, though it was a mutiny and the people at large not only took no part in it but helped the Government in every way. Contrast with this treatment the Boer War:

"The present Government of the Transvaal is in the hands of the Boer party. 'The opinion of the British Government and the opinion of the British people must not be allowed to lead to any interference with a self-governing Colony.' So that, having expended in the conquest of the Transvaal, a greater sum than Germany exacted from France at the

close of the Franco-Prussian War, 250 millions of sterling, Great Britain is unable to enforce upon the conquered people one of the very principles which the war was fought to vindicate."—Norman Angell: *The Great Illusion.*

Thus of the public debt of India amounting to 1,210 crores of rupees, a claim for 729 crores has been lodged against Great Britain.

VI—Income of Agriculturists.

G. D. Birla on the Income of the Agriculturists in India.

"It may be said that on the whole, agricultural production is more or less stationary. On the other hand as a result of the fall in prices, the agriculturist's income has been very much reduced and charges represented by land revenue, interest, etc., being fixed, the margin on his profit has more or less disappeared. And the worst of it is that there has been a heavier fall in the prices in which he is interested as numbers show that the fall has been in the ratio of 47 : 22.[18] The agriculturist has thus suffered on three fronts. He has been hit firstly, by the precipitous fall in the prices of the commodities which he sells; secondly, by the rigidity of some of the items on the expenditure side of his budget, and thirdly, by the incident that the prices of commodities which he consumes, have not fallen to the same extent as the prices of the commodities which he produces. His plight therefore is most severe.

"While in normal years India used to absorb precious metals worth Re. 1 per head of the population, in 1932-33 she sold out Re. 1-14-0 worth of gold per head. This may give us some idea of the balance sheet of the masses. A gap of Rs. 3 per head could be seen in transactions relating to precious metals alone. Other economies in expenditure on travelling, kerosene, postcards and other items have been made. Does it mean that calculated in real wealth, the average income of the people is down by Rs. 4 per head as compared with 1929? Rs. 4 per head looks a paltry sum but it is a big thing for a poor country like India.

"The present supply of grains and cereals comes to about 9¾ chataks per capita per day. If we take away from it the quantity required for seeds and cattle and also make allowance for wastage, etc., barely ¾ seer per head per day would be available for human consumption."

[18] 1929-30 and 1930-32.

Mr. D. P. Khaitan has tried to give an idea of the disastrous fall in the income of the agricultural classes of Bengal:

"Agriculturists form the bulk of our population. Owing to the tremendous fall in the prices of agricultural commodities, they have not been able to pay their rent, cess and interest on loans. So the Zemindars, too, have suffered. Due to adversity among their clients and customers, the professional and mercantile classes have necessarily suffered miserably.

"If we statistically investigate the position, we find that after deducting the quantity of food grains consumed by the agricultural classes the annual average harvest value of the crops in Bengal in the decade 1920-21 to 1922-30 was about Rs. 72 crores. The monetary liabilities of the agriculturists for rent, cess and interest amounted to about Rs. 28 crores. They had thus a free purchasing power of about Rs. 44 crores per annum.

"In the year 1932-33, the harvest value of such crops in Bengal fell to about Rs. 32 crores. The fixed monetary liabilities of the agriculturists continued to be the same as before, *viz.*, about Rs. 28 crores. It is obvious that if the agricultural classes that constitute 77·8 per cent. of the population paid their liabilities, they would be left without any purchasing power whatsoever. In such circumstances, it is not difficult to understand why the economic position of all classes of the people in Bengal is as bad as we find it."

VII—Landlords and Tenants' Distress.

It will thus be seen that the fall in price of agricultural produces for the whole of India has been tremendous; while for Bengal it is still higher. Jute is the only "money" crop in Bengal. As the *Statesman* puts it, for every Rs. 100 which the ryot used to get in 1929-30, he now gets only Rs. 20, *i.e.*, *one-fifth* of the sum. No wonder that his back is broken and he is unable to bear any more burden. His distress has aggravated the distress of the landlord and the professional man.[16] Moreover, as he has lost his purchasing power, trade in every shape has suffered correspondingly and yet the Government Shylock-

[16] How the low price of jute has affected the material condition of the people is borne out by the Government of Bengal's resolution on the report of the Board of Revenue on the land revenue administration of the province for the year 1933-34. "The material condition of the people

like exacts its uttermost farthing. This will explain the sale of Zemindaries as also the ryots' holdings as a glance at the daily papers will show. I cull from the daily papers only two or three days' sale proceedings.

Faridpur, June 24/34.

About 200 estates were advertised for sale for default in payment of Government revenue for the March kist.

Barisal, Aug., 13/34.

On account of default in respect of payment of Government revenue due to the last June kist, as many as 222 permanently settled estates have been advertised for sale, while among the Khas Mahal tenures that failed to pay the Government revenue due for the last March kist, 352 have now been advertised for sale. The sales will come off on the 24th September next.—*United Press.*

Chittagong, April 21/33.

Nearly 20,000 rent suits were instituted on the 'tamadi' day in Chittagong Sadar and the outlying 'chowkis' in the district. It is reported that the number has exceeded that of the previous year by a few hundred.

Rungpore, April 21/33.

More than 7,000 rent suits were instituted in the local civil courts on the 'tamadi' day; almost all the plaints having been filed with deficit court fees. The number is the highest for the last 25 years.

Purulia, April 20/34.

360 'Mouzas' (Taluks) have been advertised for sale here and nearly 2700 rent suits have been filed.—*United Press.*

Natore, April 20/34.

Nearly 2600 'Tamadi' suits have been filed here this year, which is showing considerable increase than the previous year.—*United Press.*

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was no better than in the previous year. Though the price of paddy and rice showed some slight rise in the latter part of the year, this did not appreciably improve their condition, in the absence of a rise in the price of jute, which is essentially the money crop of the province."

Chittagong, April 20/34.

5500 'tamadi' rent suits were filed in the Sadar Central Court, Chittagong, on the 'Tamadi' day, that is, the Bengali new year's day. It is learnt that about equal number of suits have been filed at Patiya. Figures from five other Munsiff chowkis in the interior have not yet been obtained.—*United Press.*

Comilla, April 21/34.

More than fifteen thousand 'Tamadi' suits including more than fourteen thousand rent suits were filed this year as against fourteen thousand last year.

Most of them have been filed with deficit court fees.—*United Press.*

Tamluk, April 30/34.

On the last 'Tamadi' day as many as 3300 rent suits have been filed at the Tamluk Munsiff Court. This represents an increase of about 300 over the last year's number of suits and points to the increased inability of the tenants to pay off their rents.—*United Press.*

The ryots' economic distress is not confined to permanently settled Bengal but is more or less equally keen in other provinces.

Officials are still boasting of India's credit in the world market. Do they realise at what cost this credit is being maintained? The late Sir Sankaran Nair, who is certainly not a panic-monger, said recently at Calicut that the havoc wrought by the enhancement of the taxes was appalling. This is true not only of Malabar but of all parts of India. Officials know nothing of the country if they do not know this. The fact is that in all these years of distress, the Government have cared only for the balancing of the budget. The ryot has suffered not a little for this obsession of the Government.

Sir Lalubhai Samaldas very pertinently remarks: "I cannot help re-iterating what I have often said before elsewhere that a large portion of the income collected from the ryots should go to them through the nation-building departments."

Bengal potentially is one of the richest Indian provinces, with her gross revenue of over Rs. 37 crores as against Rs. 25 crores of Madras, Rs. 15½ crores of U. P., or only Rs. 12 crores of the Punjab. It is the excessive and extortionate demands of the

Central Government that drain Bengal of her resources and leave her the poorest and the weakest in the acute struggle for existence amongst individuals and peoples. Already the iniquitous Meston Award leaves to Bengal a residual revenue of about Rs. 10 crores to cater for the needs of nearly 50 millions of Bengalis, while Bombay is given Rs. 15 crores for 20 millions of her people, Madras Rs. 17½ crores for 42 millions and the Punjab Rs. 11 crores for 20 millions. This means that the state spends on the Madrasi over Rs. 4/- per head per year, Rs. 7¾ on the Bombayite, Rs. 5½ on the Punjabi, and on the Bengali only Rs. 2/-. No wonder that the Bengali is steadily going to the wall under the unfair dispensation and losing the race against the Madrasi or the Punjabi.

This explains why India as a whole on account of the economic distress has been under the necessity of parting with Rs. 200 crores worth of "distress" gold to meet her requirements. Reference has been made above by Mr. Birla (p. 204) to this sad episode.

VIII—British Investments in India—Interest Payable.

Sir M. Visvesvaraya's *Planned Economy for India* just to hand (Dec. 17, 1934) gives the revenue *per capita* of India less than Rs. 10 ; while that for Japan is Rs. 76, for the U. S. (America), Rs. 222 ; Canada, Rs. 197 and the United Kingdom, Rs. 290. (*l. c.* p. 170).

The obligations of this country to pay interests to Great Britain at the average rate of 5 per cent. on the capital invested in Indian enterprises (Rs. 1,300 crores), would thus amount to about £50 millions or roughly Rs. 65 crores annually (*l. c.* p. 175). This is exclusive of official remittances to England for pensions and other Home charges. (*l. c.* p. 177).

The *per capita* income of the agriculturists in India is estimated at Rs. 50 ; this will enable the reader to realize their difficulty in meeting the heavy burdens imposed on them.

Mr. G. D. Birla from figures taken from *Ain-i-Akbari* shows that, on the average, living for the common people is

about four times dearer now than it was in Akbar's time ; on the other hand, money wages are about four times higher to-day than they were in 1600. In other words, the worker in real wages is getting to-day about the same amount as he was getting more than three hundred years ago. This conclusion is borne out by Moreland, in his *India at the Death of Akbar.*

There is another important feature in connection with pre-British days, which is apt to be ignored. A considerable part of the revenues was paid in kind, *i.e.*, a fixed quota on the produce of the land. But the British Government must have cash money to pay the civil and military service men and for home remittances. Hence the sun-set law was set in force. No matter what the produce of land fetches, you must pay the fixed cash revenue. Hence during the last few years, depression and slump the peasantry and along with them the land-holders, the money lenders, the traders and lawyers have been hard hit. This explains why so many holdings are for sale.

IX—A Brief Analysis of the Budget of Bengal Government for 1934-35.

Total revenue available=Rs. 11 crores and 30 lakhs.[17] The amount sanctioned for irrigation, education, health, agriculture and industry=Rs. 2 crores 50 lakhs. This reads fairly well on paper ; but if one takes the trouble to go carefully into the actual amount spent for what is called the nation-building purposes, he will be sadly disappointed. In fact most part of the budgetted amount is practically ear-marked for the bloated pay of the departmental heads, officers and their allowances.

Let me take for instance the Department of Agriculture, which includes veterinary and co-operative as its branches.

[17] The revenue is really Rs. 9,07,47,000. The balance is met by advance from the Central Government to the extent of Rs. 2,32,32,000. Bengal is going on with a deficit budget.

The total amount budgetted for the department is 23 lakhs and 80 thousand rupees, which will be spent as follows:—

Agriculture ...	...	Rs. 1,076,000
Veterinary ...	...	,, 477,000
Co-operative credit, etc.	...	,, 819,000
House to be constructed	...	,, 7,000
Purchases abroad ...	...	,, 1,000
		Rs. 2,380,000

Now let us analyse the amount ear-marked for agriculture, namely Rs. 1,076,000.

Pay of officers ...	...	Rs. 234,884
,, ,, ministerialists and establishment, etc. ...	...	,, 371,502
Allowance, honoraria, etc.	...	,, 94,778
		Rs. 701,164

It is thus evident that out of Rs. 1,076,000 more than Rs. 700,000 is consumed by officers' pay and allowance etc. On a careful analysis of the other items it is found that for the purchase of implements, improved live-stock etc., only 1 lakh of rupees is to be spent. For agricultural research, for propaganda, for the sale of agricultural products and so on there is very little left.

The amount for the co-operative branch is Rs. 819,000, out of which pay of officers=Rs. 67,920, pay of subordinate staff= Rs. 516,900 ; for *bhatta* etc.=Rs. 143,000. Whereas for five land-mortgage banks Rs. 40,000 only has been sanctioned.

It would thus appear that the top-heavy system of administration swallows up the main expenditure. Bengal is pre-eminently an agricultural country. The indebtedness of the peasants has been calculated at one hundred crores. The slump extending over the last four years has added materially to his debt and it is now put down by experts at no less than Rs. 125 crores. The Government can only spare Rs. 40,000 for

giving relief to the heavily indebted ryot in the shape of contributions to the land-mortgage banks!

One has not the patience to go through the other departments; but they all tell the same tale.

The "nation-building" departments are a mere eye-wash and deceive no one.

Let us now have a glance at the Department of Industry. The budgetted amount is Rs. 12,21,000 out of which—

Pay of the officers	...	...	Rs. 200,000
,, ,, ministerialists		...	,, 200,000
Bhatta etc.	...	...	,, 23,000
			Rs. 423,000

in other words, nearly one-third of the amount goes for the upkeep of the department. Rs. 418,000 has been ear-marked for industry proper; while for the quinine factory (see p. 144) Rs. 353,000 has been allotted, and for the help of small industries the amount budgetted is one lakh of rupees, which is almost a negligible quantity considering the needs of this vast province.

I am myself connected with several industries struggling hard for the last decade or so; it is by the utmost sacrifice of the shareholders and the managing directors that they have been kept alive, though some of them are almost gasping for very existence. The Department of Industries has been approached for help in the shape of easy loans. But the stereotyped reply is *"no funds available."*

Then again the amount ear-marked for police is Rs. 2 crores and 25 lakhs (approximately), *i.e.*, nearly one-fourth of the real revenue.

For education we have

Under Reserve	...	...	Rs. 1,231,000
,, Transferred	...	...	,, 11,671,000
			Rs. 12,902,000

in other words, for a handful of Europeans and Anglo-Indians Rs. 1,231,000 and for 5 millions of people the amount given is only Rs. 1 crore and 17 lakhs or one-eighth of the real available revenue. I have already pointed out that a good slice of this again is enjoyed by the higher officers and the inspecting staff (see p. 80). So very little can be spared for education proper.

Let us represent Bengal as a helpless widow with an income of Rs. 100 ; out of this two-thirds is snatched away by the Central Government for giving her protection from the *external* enemy ; of the remaining one-third again, *i.e.* Rs. 33, the police takes away nearly one-fourth, or Rs. 8 for giving her *internal* protection, *i.e.* protection from robbers, thieves etc. She has only Rs. 25 left for her own support, including education of her children, sanitation etc. I have just shown by a rough analysis of the budget how the latter amount is spent.

The way in which the amount budgetted for "travelling allowances" is spent is altogether amazing. One would not have the least grievance if the money was well-spent in the true interests of the cultivators. The tour diaries and the travelling allowance bills of any of the superior officers of the department will speak eloquently how these officers are accustomed to travel and how conscientiously they perform their duties while on tour. The usual procedure with most of the officers is to go to their destination—a convenient railway or steamer station and to leave the same by the next train or steamer. Instances are also not rare where the inspecting officers give previous intimation to their subordinate officers to meet them at a railway or steamer station and without alighting from the train or steamer they proceed by the same to their next place of visit. This way of inspection goes on until they return to their head quarters in a circuitous method. It is almost unusual for the superior officers of the department to undertake any journey into the interior of any district where rail, steamer or motor communications are not available. It is also a very rare case with them to meet and discuss with the non-officials—not to speak of the cultivators—any question of

agricultural improvements in the districts under their charge. Space does not permit to make any further comment on it.

I was once invited by a member of the Executive Council to accompany him on a tour of inspection of a famine area. The journey was performed partly in steam launch and partly in railway saloon. As is the custom a high official of the Agricultural Department and the Collector of the District also followed suit. Needless to say, nothing came of it. The agricultural officer whispered to my ear that if simply the price of the coal consumed had been paid to the famished people some lives at any rate would have been saved from starvation. The visits of the Executive Council Member or of the Governor often turn out to be *visitations*, as they are undertaken often with a view to refute the cry of distress raised in the newspapers (*cf.* Vol. I. p. 250 *et seq.*).

X—Bengal Penalised.

It has already been shown that from the very commencement of British rule the vast resources of Bengal have been continuously utilised for the expansion of British conquests and for the East India Company's investment.[18] (Vol. I. p. 428 *et seq.*). Even to-day the process of bleeding is going on.

"Mr. R. W. Brock, late Editor of *Capital*, Calcutta's oldest financial Anglo-Indian (old style) weekly, writing on 'Bengal and its Jute Industry' in the July number of *The Asiatic Review*, says:

Suffice it to say that, in a Province with a population numbering approximately fifty millions, the Provincial Government has a revenue

[18] "Bengal is in itself an inexhaustible fund of riches, and you may depend upon being supplied with money and provisions in abundance."—Clive to Mr. Pigot, Governor of Madras; *vide* Malcolm's *Clive*, Vol. I. p. 570.

"With regard to the magnitude of *our possessions*, be not staggered (italics are mine). . . . When the revenues are all perfectly regulated, the Company will receive, clear of civil and military expenses, . . . a net income of £2,000,000 sterling per annum."—Clive's Letter to Mr. Dudley, 29th Sept., 1765.—*Ibid.*, Vol. II. p. 344.

not exceeding £10,000,000 to finance requirements so varied and comprehensive as Police, Education, General Administration, Civil Works, Justice, Medical, Jails, Excise, Public Health, Agriculture, Registration, Stationery and Printing, Forests, and last but not least, Industries. In other words—to quote only one illuminating comparison—under the Montagu-Chelmsford Constitution the Bengal Government was allotted, for all purposes, a smaller sum than the London County Council spends on education alone.

"£10,000,000 at the present rate of exchange is equal to Rs. 133,333,333⅓. For years Bengal's revenue has been very much less than that sum. That is the only inaccuracy in Mr. Brock's statement.

"His comparison of Bengal's total *provincial* revenue with the educational expenditure alone of the London County Council is very illuminating. The population of the Administrative County of London is 4,385,825 against Bengal's fifty millions. The London County Council's net educational expenditure in 1933-34 was, according to *Whitaker's Almanac*, £12,169,839. Its net total expenditure on all heads was £28,114,949. Including debt charges, the total was £30,086,394.

"Mr. Brock continues:

In effect, under the Meston Settlement, all the expanding revenues —such as customs duties and income-tax—were retained by the Government of India, while most of the Departments calling for larger expenditure were assigned to the Provincial Governments, and, in particular, to the Indian Ministers, such as health, education, agricultural improvements, etc. It was peculiarly unfortunate that in Bengal, as I have already noted, the ministers were left to face the Legislature with empty pockets: a position not conducive either to political popularity or constructive achievement. *Provincial taxation in Bengal was extended to the limits of tolerance and productivity*; but of the total revenues collected in the Province from all sources, about two-thirds were taken by the Central Government, *whose expenditure is mainly incurred outside the Province*, leaving the Provincial Administration only the exiguous income already mentioned. (Italics are ours. Ed., *M. R.*).

"Those who think that taxation in Bengal is lighter than in other provinces, relatively speaking, ought to reflect on Mr. Brock's words, 'Provincial taxation in Bengal was extended to the limits of tolerance and productivity.'

"The significance of the fact that the Central Government takes away about two-thirds of Bengal's revenues and spends the amount mainly outside Bengal should be clearly understood. The largest item of expenditure of the Central Government is that incurred on 'Defence.' As recruits for the army are not, generally speaking, taken from Bengal, nor camp-followers, therefore, for her big contribution to the Central Exchequer Bengal gets no return in the form of salaries paid to these persons. That is only one direction—there are others —in which some other regions are gainers, Bengal is not. Bengal is only made to pay.

"Mr. Brock has explained himself more fully in the following paragraph:—

> Calcutta, that is to say, collects revenues which the Delhi Administration distributes—mainly in Upper India. Perhaps the process I refer to can be illustrated most vividly by instancing the yield of the jute export duty. Jute is grown virtually only in Bengal, and in the rural areas is the principal source of income, while in Calcutta jute manufacture is the principal industry. In the last decade, however, the Central Government has collected between £30,000,000 and £40,000,000 by this form of taxation, and has retained the whole amount, *allowing* the provincial Government to finance, for example, even the Agricultural Department, to whose efforts, prior to the world depression, the progressive improvement in the outturn and quality of the jute crop was largely due. Analogously, while the extension of the mill industry in Calcutta threw additional expenditure on the Bengal Government, the Central Government monopolized the revenue from income-tax, which represents the principal method of securing for the state a reasonable percentage of the substantial profits this industry, until recently, has obtained. Here, again, therefore, Bengal was unable to retain any share of the taxation collected within its own borders. Very large sums flowed out: only insignificant rivulet flowed back.

"There is quiet unconscious humour in the word "allowing", which we have italicized above. It is indeed very gracious on the part of the Central Government to take all the receipts from the sources mentioned and *allow* the Bengal Government to meet all the expenditure."—(*Modern Review*, Sep., 1934).

It is true half the export duty on jute has been restored this year. Against this any number of indirect taxation has been placed on the shoulders of the people. Not only taxation

on articles of luxury, but also on the daily necessaries of life has been piled, so that the poor peasants may not escape. Thus the price of post-cards has been trebled; the rate on parcel post has been increased. Moreover during the last 5 years additional duties have been levied on piece-goods, salt, sugar, kerosene, areca-nuts, spices, rayon, machinery etc.; railway fare has been enhanced; in fact, it has been calculated that during Sir Geo. Schuster's regime somewhere near 50 crores of rupees have been raised from these items. When it is borne in mind that during this slump period, people have suffered most from reduction of income, it is needless to point out what this additional burden means. It might be urged that the duties on imported articles press equally on the people of other provinces as well; against this it has to be said that Bengal with her population of 50 millions is the biggest consumer of the above articles; hence this indirect taxation presses most heavily on her. In fact, what little relief has been afforded in the shape of partial restoration of the jute tax has been more than made up as shown above. What has been given with one hand has been taken away with the other, while no sincere effort is made for retrenchments.

XI—Creation of New Provinces—Its Origin and Psychology.

I am strongly of opinion that the different provinces of India should be re-organized on linguistic, ethnic and cultural basis. The *Statesman* (July 5, 1933) of Calcutta in supporting the creation of "New Orissa" took occasion to observe:

"The history of the Orissa question has its beginnings in the year 1866 when Sir Stafford Northcote, then Secretary of State for India, favoured the redistribution of provincial territories with a view to bringing under one separate administration the various groups of people with a common ethnic origin and cultural affinity."

In fact, Bengal stands to gain much if the principle enunciated above be given effect to. Her case has been

admirably put in the Report of the Committee for the year 1932 of the Bengal National Chamber of Commerce:

"The Bengalees placed outside Bengal, in areas which ought to be transferred to this Province on historical, cultural, linguistic and ethnological grounds, make up as much as 12% of Bengal's population. Their transfer back to Bengal would mean an increment of 12% of the Provincial revenue of Bengal, amounting to a crore and a half, taking the present normal revenue to be Rs. 12 crores. On the estimate of Bengal's gross income of Rs. 32 crores, the increment would be Rs. 4 crores.

"The Bengali-speaking areas lying outside Bengal comprise the zone of the richest mineral districts as in Bihar, or tea plantations as in Assam. Their contribution to Bengal's revenue would, therefore, be higher than that ascertained by the mere counting of heads on a population basis.

"These Bengali-speaking areas may be roughly taken to be as follows:—Dalbhum, rich in mineral resources, the seat of Tata Iron Works and other factories and mines; Manbhum, similarly rich in deposits of coal and other mineral products; Pakur sub-division of Sonthal Parganas; Kissenganj sub-division of Purnea district; a large part of Bhagalpur district; and Goalpara and Sylhet in Assam. The Orissa Boundaries Committee had already declared some of these as Bengali-speaking, and turned down the claims preferred to them by the Oriyas. A Bengal Boundaries Committee would surely pronounce the same verdict in respect of the other areas.

"Before the Provinces start as self-governing states, there must be a complete stock-taking of their resources. In the case of Bengal, the problem of her resources is largely the problem of her boundaries. She cannot afford to lose permanently in size and shape, territory and man power. Handicapped already by the Meston Award, she is to figure in the Federation as the poorest state as a result of artificial and arbitrary arrangements. A Province, out of which resources have been drawn for more than a century in different parts of India for purposes other than her own interests, would here-

after rank as a third-class constituent in the Indian Federation, with her revenue fixed at half the rate per head of population secured by Bombay or Madras, evidently a case involving gross violence to historical and economic consideration alike.

* * * * * *

"The arbitrary character of such distribution of provincial boundaries is clearly borne out by the fact that these districts have never disclaimed their intimate and long-standing relations with the province of Bengal, nor have they even yet lost their alien character in their newly adopted environment. The woeful condition of the people of these districts is a natural consequence of the conflict between their administrative allegiance to a strange province and their traditional, cultural, linguistic and social affinities with the people of Bengal.

* * * * * *

"In India there are only a number of administrative areas which have grown up almost hap-hazard as the result of conquest, suspension of former rulers or administrative convenience. No one of them has been deliberately formed with a view to its suitability as a self-governing unit within a federated whole. The artificiality of the boundary demarcations has recently gained recognition even from the Government of India and it may be recalled in this connection that the latter have put themselves under a pledge to go into the problem with a view to reshuffle the present arrangement. Thus, during the Viceroyalty of Lord Hardinge, when certain areas in Western Bengal were allotted to the newly constituted province of Bihar and Orissa, a definite assurance was given that the question of restoring to Bengal the Bengali-speaking portions annexed to Bihar would be subsequently considered. The memorable despatch of Lord Hardinge of August, 1911 which was endorsed by the Durbar speech of His Majesty the King Emperor also favoured the amalgamation of the Bengali-speaking districts in the adjoining provinces with their mother province. As a matter of fact the claim of restoring Sylhet has already received the approval of the Governments of both

Bengal and Assam, which are practically the only provinces interested in the transfer.

* * * * * *

"The Committee would in this connection refer to the Report of the Orissa Committee from which it may be easily surmised that the Bengalees constitute the preponderant element in the composition of the population in the district of Manbhum and also over a large section of the Singhbhum district, particularly in the Dhalbhum area. Incidently it should also be borne in mind that having regard to the key position of coal in the industrial system of the country, it is of the highest value to the Province in the planning of its industrial life to be the possessor of large resources of coal.

* * * * * *

"She claims restoration to her of parts which were severed from her for the formation of new provinces. She can no longer spare these parts for the benefit of other provinces in the coming Federation which promises to leave her as a deficit province under inequitable financial conditions not of her own creation. She asserts her natural, fundamental right to be reconstituted a linguistic unit as the home of 52 millions of Indians speaking a common language and fit to rank as a nation by themselves. She protests against Bengal being distributed among her neighbouring provinces which treat them as discontented minorities with their rights to their own culture imperfectly recognised."

I should add here that Manbhum and Singhbhum contain the most salubrious climate where the malaria-stricken Bengalis may not only go for a change but settle down as these may be regarded as sanatoria or health resorts.

Thus while Orissa and Sind are going to be constituted as new provinces, the claims of Bengal go unheeded, as if the Government is determined to keep her in perpetuity emasculated and impoverished.

There is, however, another melancholy aspect of the question. The partition cry often emanates from selfish and

political considerations. A few self-seeking and clamorous individuals constitute themselves as the mouthpiece of the people, because they know full well that in the newly created Province there will be a new Governor with his ministers and other administrative heads ; and a large number of well paid posts. In short, it is the gorgeous vision of the satisfaction of personal aims that really loom before these self-seekers. It is conveniently forgotten what huge additional burdens would be imposed.

The dumb voiceless millions in whose name they base their claims are always in the background. They are simply used as pawns in the game—they are the dupes and the exploited, only husks will be left for them as the greedy locusts will eat up the substances.

The Mussulman about two years ago had some sound observations to make.

"There are amongst the Indian Mussalmans, as amongst our Hindu fellow-countrymen, two main schools of politicians and political thinkers. One school would maintain British supremacy and would be satisfied if only more Indians be taken into the services of the Government, if the legislatures be only extended and if only there be a wider scope for the middle class people to be members of, and to hold high offices under, the Government. They would hardly do anything for the masses, *though they would exploit them when opportunity arises, in most cases for the attainment of their own ends.*

"The other school believes that the country cannot at all prosper under foreign domination—foreign domination and foreign connection are, of course, altogether different things—and the primary object in their public life is national assertion and acquisition of political power so that the interests of the masses—the labouring and the cultivating classes who form about 90% of the Indian population and are the backbone of the nation—may be satisfactorily furthered and the chronic poverty of a very large section of them may, so far as possible, be ultimately removed."

This also explains the cry for communal representation, which has been started by the Prime Minister's award. So many seats in the Council Chamber for the Hindus, so many for the Moslems, among the Hindus again so many for the high castes and so many for the "Depressed" classes. The old territorial constituencies are eliminated and candidates for election are taught only to appeal to the electors on specific selfish, and parochial and group interests. They are taught thereby only to keep in view their own narrow outlook. The country is thus split up into smaller warring units ; and made to forget real national concerns—namely, public health, sanitation, land reclamation, agricultural development, and above all, mass education. To me it matters very little whether a few more seats go to the share of the Hindus or the Moslems or the "Depressed" classes provided the real issues are not clouded and lost sight of.[19] Hence separate electorate will prove to be

[19] The mischief sought to be created and perpetuated by the Award has been eloquently pointed out by two distinct schools of British statesmen belonging to parties whose views generally differ as the poles asunder. The Marquess of Zetland and his colleagues including the Marquess of Salisbury, Earl of Derby, Lord Lytton, Lord Hardinge, and Lord Middleton in their note of dissent to the Joint Parliamentary Committee's Report after criticising the provisions of the Award in the most trenchant language, have summed up the position in the following words :

"We have already stated our objections to conferring upon a community by statute a definite majority unalterable by an appeal to the electorate. When the relative position of the two communities in Bengal in every thing except actual number is taken into account, it will be seen that the reasons against placing the Hindu community in a position of permanent statutory inferiority in the legislature are particularly strong. Under British rule, the Hindus have played an enormously predominant part in the intellectual, the cultural, the political, the professional and the commercial life of the province . . . In all previous constitutions the significance of these facts has been admitted." (italics are mine).

In the circumstances set forth above, the fair and reasonable course, according to the Marquess of Zetland, would have been to recommend that in Bengal all general territorial constituencies should be open to candidates of both the communities without reservation of seats or separate electorates. But as His Lordship and his friends rightly realised, such a course would have raised a hornets' nest about their ears.

a curse as it makes people communally minded and blind to the real good of the state. The lines of cleavage which have shown themselves will yawn wider and other distinct fissures will soon be manifest.

Mr. H. N. Brailsford representing the Labour Party says:

"The dangerous Hindu nationalist element is held in check by the astonishing arithmetic which, after heavily over-representing every discoverable minority, finally allots to the caste Hindus only 86 seats out of the 250 that fall to British India in the Assembly and yet the caste Hindus form the indisputable majority of the population.

* * * * * *

Not content with creating a Parliament that can by its composition do nothing unseemly, they have loaded it with "Safeguards". On limbs incapable of motion they must need hang fetters."—*Property or Peace?* pp. 211-12.

CHAPTER XI.

Emasculation and Demartialisation of the Indian People under British Rule.

"If there is trouble, others will quiet it down. If there is riot, others will subdue it. If there is danger, others will face it. If our country is in peril, others will defend it.—When a people feel like this, it indicates that they have got to a stage when all sense of civic responsibility has been crushed out of them, and the system which is responsible for this feeling is inconsistent with the self-respect of normal human beings."—Lord Sinha.

"And it is to be feared that our rule may have diminished what little power of this sort (evolving a stable government) it may have originally possessed. For our supremacy has necessarily depressed those classes which had anything of the talent or habit of government."—Seeley: *The Expansion of England.*

"Nor is it only in their intelligence that they (the public at large) suffer; their moral capacities are equally stunted. Wherever the sphere of action of human beings is artificially circumscribed, their sentiments are narrowed and dwarfed in the same proportion."—J. S. Mill: *Representative Government.*

There is a certain class of English writers whose outlook is narrow and vision blurred; they can only take a superficial view of events and lack penetration and deep insight. Thus Stewart quotes with approbation the view that the great mass of the population have had their condition ameliorated, "although certain classes may have been depressed."

"In the following remarks from the 5th Report of the Select Committee of the House of Commons on the affairs of the East India Company, I most heartily concur; and believe them, from my own experience, to be perfectly well founded.

"In the Bengal provinces, where peace has been enjoyed for a period of time perhaps hardly paralleled in Oriental history, [improvements] have manifested themselves in the ameliorated condition of the great mass of the population, although certain classes may have been depressed by the indispensable policy

of a foreign Government. The nature and circumstances of our situation prescribe narrow limits to the prospects of the natives, in the political and military branches of the public service: strictly speaking, however, they were foreigners who generally enjoyed the great offices in those departments, even under the Moghul Government; but to agriculture and commerce every encouragement is afforded, under a system of laws, the prominent object of which is, to protect the weak from oppression, and to secure to every individual the fruits of his industry. The country, as may be expected, has under these circumstances, exhibited, in every part of it, improvement, on a general view, advancing with accelerated progress in latter time"—Stewart: *History of Bengal.*

I—Policy of Pathan Kings and the Subadars.

Literally the Pathan Kings of Bengal as also the Subadars (Provincial Governors) were of foreign origin, but certainly they were not foreigners in the sense in which the British rulers are.[1] Nor were the children of the soil, who were mostly Hindus, excluded from high administrative and military offices, which has been the systematic policy under the British rule. Stewart who endorses the views of the Select Committee from "his own experience" contradicts himself in the body of his *History*, as the subjoined excerpts will prove:

"The Nuwab [Shuja], immediately after, selected a Council, consisting of the two brothers, Hajy Ahmed and Aly Verdy Khan; Roy Alum Chund, for whom he procured the title of Roy Royan; and the Imperial banker, Juggut Seat; and by their advice conducted himself in all the measures of his government. The two latter were Hindoos, and were well acquainted with the minute details of business and all the intricacies of the revenue department (p. 417).

"Having resettled the government of Behar, he [Aly Verdy] appointed his grandson, Seraje ad Dowlah, [nominal] Governor of that province, but nominated Raja Janky Ram[2] to be his deputy, and to perform the duty (p. 483).

"Soon after Seraje ad Dowlah's return to Moorshudabad, he, in order to try the allegiance of his cousin, appointed a person named Rasbehary

[1] *Cf.* Burke's Speech quoted in Vol. I. p. 432.

[2] Raja Janakiram was a Bengali Kayestha.

to the foujedary of Birnagar in Purneah, and ordered Shokut Jung to put him immediately in possession of the office (p. 506).

"[Seraje ad Dowlah] sent orders to Raja Ramnarain whom Aly Verdy Khan had made Deputy-governor of Behar, to assemble his forces, and, having crossed the river, to enter Purneah; [and the other army] under the orders of Raja Mohun Loll crossed that river at Surdah (p. 507).

"Raja Mohun Loll entered Purneah, and took possession of all the wealth and property of Shokut Jung" (p. 510).

In fact, during the Subadarship of Aliverdi, Siraj-uodowla and Mir Jaffar, the highest posts in the civil and military departments were almost the monopoly of the Hindus. Raja Ramnarayan was not only the Governor of Behar (Patna) but held also the Chief Military Command in that province; his prowess on the battle field is writ large in the pages of history.[3] Shitab Roy, though not a Bengali, was equally conspicuous for his bravery and martial spirit:

"A chief named Schitab Roy had been entrusted with the government of Behar. His valour and his attachment to the English had more than once been signally proved. On that memorable day on which the people of Patna saw from their walls the whole army of the Mogul scattered by the little band of Captain Knox, the voice of the British conquerors assigned the palm of gallantry to the brave Asiatic. 'I never', said Knox, when he introduced Schitab Roy, covered with blood and dust, to the English functionaries assembled in the factory, 'I never saw a native fight so before.' "—Macaulay: *Warren Hastings.*

Under Murshid Kuli Khan the revenue Department was run entirely by the Hindus, namely Bhupati Roy, Darpanarain and Raghunandan the founder of the Natore Raj; while Lahory Mall was a Hindu military commander. Under this great Nabob all the big zemindars, with the exception of the Raja of Birbhum (a Mussulman) were Hindus.—*Vide Nababi Amal* or "Bengal under the Nabobs" by K. P. Bannerji.

Durlavram [Dullub] and Mir Jaffer were the chief military commanders under Siraj. *Cf.* "Roydullab had been sent with a considerable body of men to occupy an entrenched camp at Plassey."—Malcolm's *Clive*, Vol. I. p. 217. Again, "his (Mir Jaffer's) Prime Minister, Roy Dullub . . . . has more than half the Army under his command"—*Ibid.*, p. 336.

[3] Regarding Ramnarayan *vide* Clive's eloquent testimony in Malcolm's *Clive*, Vol. I. pp. 333-36.

II—Ostracism of Indians from Posts of Responsibility.

The *bára bhunyas* had not only standing land forces but regular flotilla to repel the piratical depradations of the Mugs and the Arrakanese. Even now there are several Hindu families in Bengal who bear the proud appellation of *Mirbahar, i.e.,* Commander of the Fleet.[4] In the early days of British conquest both in the Madras Presidency and Bengal many Indians held high military ranks, and European privates and even officers did not disdain to serve under their command. When however British ascendancy was secured on a firm footing, the idea of an *Empire in Asia* began to dawn upon the servants of the East India Company, and their head began to turn and the feeling of the conqueror and the conquered slowly permeated the services from top to bottom. Even the "Tommy" was seized with imperialistic fever and refused to salute an Indian, however high his qualifications were. The arrogance of a ruling caste began to pervade the rank and file of the British regiments. The consciousness of superiority slowly and imperceptibly became more and more deeply ingrained in the dominant race as British paramountcy was established on a solid basis, with the result that the gulf between the rulers and the ruled yawned wider and wider. By the time of Lord Cornwallis, the ostracism of Indians from all posts of honour and responsibility was complete.

I am tempted to quote the precious words of Sir T. Munro:

"The main evil of our system is the degraded state in which we hold the natives . . . We exclude them from every situation of trust and emolument; we confine them to the lowest offices, with scarcely a bare subsistence ; and even these are left in their hands from necessity, because Europeans are utterly incapable of filling them. We treat them as an inferior race of beings. Men who, under a native government,

[4] Under the Pathan kings of Bengal the *bára bhunyas,* or the twelve baronial lords, held practically sovereign sway; they paid only a nominal tribute, which was withheld when the ruler on the throne was weak. Raja Janakiram was head of the Revenue Department under Ali Verdy. His son was the celebrated Durlavram, who with Mir Jaffer and Jagat Sett played a conspicuous part in the plot to dethrone Siraj.

might have held the highest offices of the state; who, but for us, might have been governors of provinces, are regarded as little better than menial servants. . . . We reduce them to this abject state, and then look down upon them with disdain, as men unworthy of high station.

"Is the effect, then, of our boasted laws to be ultimately merely that of maintaining tranquillity, and keeping the inhabitants in such a state of debasement that not one of them shall even be fit to be entrusted with authority? If ever it was the object 'of the most anxious solicitude of the Government to dispense with their services except in matters of detail,' it is high time that policy so degrading to our subjects, and so dangerous to ourselves, should be abandoned, and a more liberal one adopted. It is the policy of the British Government to improve the character of its subjects, and this cannot be better done than by raising them in their own estimation, by employing them in situations both of trust and authority."

The mischievous consequences of this policy were first pointed out by Sir T. Munro. Since then, other eminent Anglo-Indian statesmen—Elphinstone, Tucker, Malcolm, Lawrence, Law, Sleeman, Clerk, and others have spoken in no uncertain language.

I quote below from my essay[5] written half-a-century ago:

Unfortunately, the infatuation with which England had been seized was dead to all note of admonition and warning. In a remarkable letter—remarkable alike for its pregnant remarks and the boldness and candour of its tone—which the great Governor of Madras had addressed, in 1817 to the then Governor-General (Lord Hastings), we find the following observations:

"I doubt very much if the condition of the people would be better than under their native princes. The strength of the British Government enables it to put down every rebellion, to repel every foreign invasion, and to give to its subjects a degree of protection which those of no native power enjoy. Its laws and institutions also afford them a security from domestic oppression unknown in those States. But these advantages are dearly bought; they are purchased by the sacrifice of independence, of national character, and of whatever renders a people respectable. The natives of the British provinces may, without fear, pursue their different occupations, as traders, meerasiders, and husbandmen, and enjoy the fruits of their labour in tranquillity; but none of them can aspire to anything beyond this mere animal state of thriving

[5] *India before and after the Mutiny* by an Indian Student.

in peace—none of them can look forward to any share in the legislation or civil or military government of their country. It is from men who hold or are eligible to public office, that natives take their character: where no such men exist, there can be no energy in any other class of the community. The effect of this is observable in all the British provinces, whose inhabitants are certainly the most abject race in India. No elevation of character can be expected from men who, in the military line cannot attain to any rank above that of a subador, where they are as much below an ensign as an ensign is below the commander-in-chief, and who, in a civil line, can hope for nothing beyond some petty judicial or revenue office, in which they may by corrupt means make up for their slender salary."

Again: "The consequence, therefore, of the conquest of India by the British arms would be, in place of raising, to debase the whole people. There is perhaps no example of any conquest in which the natives have been so completely excluded from all share of the government of their country as in British India."

"It would be difficult to discover in history another instance of this ostracism of a whole people. The grandsons of the Gauls, who resisted Cæsar, became Roman senators. The grandsons of the Rajpoots, who opposed Baber in his attempt to establish the Mogul power, and at the battle of Biana all but nipped his enterprise in the bud, were employed by his grandson, Akbar, in the government of provinces and the command of armies, and they fought valiantly for him on the shores of the Bay of Bengal and on the banks of the Oxus. They rewarded his confidence by unshaken loyalty to the throne, even when it was endangered by the conspiracies of his own Mahommedan satraps. But wherever our sovereignty was established in India the path of honourable ambition, and every prospect of fame, wealth, and power, was at once closed on the natives of the country. This proscription was rendered the more galling by comparison with the practice of the native courts around, where the highest prizes were open to universal competition."—Marshman.

General Nott speaks with admiration of his "fine" Sepoys, to whose valour and heroism he was indebted for the defence of the Candahar garrison. The Mogul emperors also had their Afghan wars, but they appointed a great many Hindu princes, like Todar Mall, as commanders of the expedition. Again we read: "In the struggles for empire amongst the sons of Sah Jehan, consequent upon his illness, the importance of the Rajput princes and the fidelity we have often to depict were exhibited in the strongest light. The Rahtore prince (Jeswant Rao) was declared *generalissimo* of the army destined to oppose Aurangzebe". Can a Hindu ever aspire to be a Pollock, or a Nott,

or a Roberts under the benign British rule? What is the highest goal of his ambition? The "rank of a subaltern officer."[6]

During the present century there have sprung up in India in connection with the Native States, financiers, administrators, and statesmen, one and all of whom would have done honour to any country in Europe. Conspicuous amongst these stand the names of Poornea and Runga Charlu (Mysore), Shasia Shastri (Paduacotta), Sir Salar Jung (Hyderabad), "as distinctly a statesman as Lawrence or Dalhousie," Sir T. Madhava Rao (Travancore, and Baroda), Sir Dinkar Rao (Gawalior), Kripa Ram (Jamu), Pandit Manpûl (Alwur), Faiz Ali Khan (Kotah), and last, but not least, Madho Rao Barnè (of Kolahpur). How is it that in British India proper we scarcely find any such names? The reason is not far to seek. The numerous Native States, with the little vestige of power which they have been allowed to retain, afford ample scope for the display of administrative abilities; whereas in British dominions native talents are kept confined within narrow and circumscribed limits.[7]

During the five decades that have passed since the above was written, the policy of the British Government has been marked by an increasing association of Indians in the affairs of the administration. But this unfortunately has not resulted in the development of initiative and resourcefulness among the people, for the tendency has been always to push up those men to the higher offices of state who are considered in secret official despatches "as safe as dead mutton" (*cf.* p. 122).

I have just shown that the native states of India have provided in many cases opportunities for the development of Indian talents, but here too the baneful influences of the present system of Government are quite apparent. An enlightened ruler of an Indian state has been an exception rather than a rule. It could not have been otherwise, as will be at once evident from this short extract from Mr. Pannikar's *Indian States and the Government of India :*

[6] "Discontent of a most serious kind existed among the Indian army, owing to the pay, and owing to the impossibility of native soldiers rising to any rank above that of a subaltern officer."—Lord R. Churchill: *Speech*, 5th May, 1885.

[7] Appreciative portraitures of some of these eminent characters are given in Temple's *Men and Events of my Time.*

"The only thing we have to note in connection with the degraded luxury and the meaningless pomp of many Indian courts is that such a result is inevitable when there is no sense of direct responsibility in the princes. In olden times a despot who oppressed his subjects or a debauchee who looked only to his pleasure was not left long undisturbed. Either an outside invasion or an internal rebellion put an end to his career. But the British Government now supports the ruler as long as he is loyal to his agreement and does not too openly violate civilized conventions. The ruler is left free in such a case to do whatever he pleases with his treasury and to fleece his subjects to any extent for the sake of his pleasures."

Mr. Pannikar also quotes the observations of Sir Thomas Munro :

"The usual remedy of bad Government in India is a quiet revolution in the palace or a violent one by rebellion. But the presence of the British force cuts off every chance of remedy by supporting the prince on the throne against any foreign and domestic enemy. It renders him indolent by teaching him to trust to strangers for his security, cruel and avaricious by showing him that he has nothing to fear from the hatred of his subjects."

Not content with the complete exclusion of Indians from high administrative offices, the early British rulers of India, in their love for the centralization of all power did not hesitate to destroy the time-honoured system of self-government prevailing in the Indian village communities. The mischief has been incalculable, and the people have been veritably reduced to the status of dumb, driven cattle. I quote here another paragraph from my old essay :

One of the leading features of the system of internal administration which owes its origin to the Marquis of Cornwallis is, to quote the biographer of Sir T. Munro, "the entire subversion of every native institution, ... and the removal, as much as possible, out of the hands of the natives, of every species of power and influence." The same writer further on continues : "Again, in all Indian villages, there was a regularly constituted municipality, by which its affairs, both of revenue and police were administered, and which exercised to a very considerable extent magisterial and judicial authority in all matters, private as well as public . . . But the most remarkable of all the native institutions was perhaps, the Punchayet. This was an assembly of a certain number of the inhabitants, before whom parties maintaining disputes one with another pleaded their own cause, and who like an English jury, heard

both sides patiently, and then gave a decision according to their own views of the case." Sir Charles Metcalf's eloquent and graphic account of the Indian village communities is also worth quoting here:

"The village communities are little republics, having nearly everything they want within themselves and almost independent of any foreign relations. They seem to last where nothing else lasts. Dynasty after dynasty tumbles down; revolution succeeds to revolution; Hindoo, Pathan, Mogul, Marhatta, Sikh, English—are all masters in turn; but the village community remains the same . . . . This union of village communities, each one forming a separate little state by itself, has, I consider, contributed more than any other cause to the preservation of the people of India through all the revolutions and changes which they have suffered and is in a high degree conducive to their happiness, and to the enjoyment of a great portion of freedom and independence."

These noble and time-honoured institutions—where are they? Echo mocks the inquirer, and repeats: "Where are they?"

Thus all power of every kind—civil, judicial, and administrative—having been abstracted from these native institutions, was lodged in the hands of the English magistrates, or those of highly paid officials in the local centres. The account of the functions of the magistrate as given to Lanoye still holds good.

"Sachez donc que nos magistrats de Zillahs, a leurs fonctions d' administrateurs, de collecteurs, de juges au civil et au criminel; joignent encore celles de préfets de police."—*L'Inde Contemporaine* (1858).

Now, the population of a Zillah (district), often as big as Yorkshire, varies from two to four millions; and the personage of whom we are speaking, not being omnipresent and omniscient, is a perfect stranger to the wants and grievances of those entrusted to his care. Shut up within the four walls of the bureau, the Anglo-Indian administrators spend their time in report-making and précis-writing. But they labour under one great disadvantage, namely, they know not the people for whom they are supposed to be responsible. As Sir James Caird says: "The tendency here of officialism is to bring every person into subjection to the rule of the officials,

who are constantly asking for returns and statistics, which, though often buried in their bureaus when they get them, occupy much of the time of the district officers in inquiry and preparation. The natural relations between landlord and tenant are occasionally made the subject of experimental theories, by men who never had any land of their own."

III—No Freedom for Indians.

The new system of land revenue introduced by the British rulers has also proved a crushing burden and is the chief contributory cause of the dire poverty of the masses. Sir Sankaran Nair, an ex-member of the Viceroy's Executive Council and a moderate among moderates, maintained that the *ryotwari* system was devised mainly with a view to destroy the spirit of independence in the peasantry as the following extract will show:

"Quoting extensively from a former civilian named Thackeray who was mainly responsible for bringing into being the present 'Ryotwari System,' Sir Sankaran showed that the present land revenue system had a political basis. Mr. Thackeray says that in those times each man in Malabar and South Kanara had a small plot of land of his own which he cultivated and on which he lived. The cultivator was independent spirited and had a great desire to go forward. These great qualities, says Mr. Thackeray, must be rooted out of them. A craving for freedom, and an independent spirit should not be fostered in the Indian; that was against the interests of Britain. They did not want Indians as soldiers, statesmen or judges. It was for these reasons that the ryotwari system was devised.

"The basic principle of the ryotwari system was none other than the idea that after deducting the land revenue, the cultivator should not have anything left with him of the produce except the wherewithal for his meagre subsistence till the next harvest time. Mr. Thackeray's ideas have triumphed."

What Dilke wrote in 1890 in his *Problems of Greater Britain* is substantially true even to-day:

"It is indeed difficult to see upon what ground it can be contended that our Indian government is not despotic. The people who pay the taxes have no control over administration. The rulers of the country are nominated from abroad. The laws are made by them without the

assent of representatives of the people. Moreover, that it is the case which, as has been seen, was not the case under the despotism of Rome, or in India itself under the despotism of the Moghuls, namely, that the people of the country are excluded almost universally from high military rank, and generally from high rank in the Civil Service. *The nomination of a few natives to positions upon the Councils is clearly in this matter but a blind,* and it cannot be seriously contended that the Government of India ceases to be a despotism because it acknowledges a body of laws. On this principle the Russian Government is not a despotism, because the Emperor never takes a decision without some support for his views in the Imperial Senate. (The italics are mine).

"It is also true that, with modern facilities for coming home and for reaching the hill stations, the present generation, both of soldiers and civilians, are less identified with India than was the case with their predecessors. . . . . Moreover, it must be constantly borne in mind that the great majority of the people of India are credulous and superstitious, and given to believing the most extraordinary inventions without the smallest evidence, and that there constantly circulate in India rumours as to the actions and the intentions of the Government, which are generally believed, although entirely without foundation, and which affect prejudicially the view taken of the rulers by the ruled."

I shall conclude this chapter with the following quotation from Seeley's *Expansion of England.*

"We doubt whether with all the merits of our administration the subjects of it are happy. We may even doubt whether our rule is preparing them for a happier condition, whether it may not be sinking them lower in misery, and we have our misgivings that perhaps a genuine Asiatic Government, and still more a national Government springing up out of the Hindoo population itself, might in the long run be more beneficial because more congenial, though perhaps less civilized, than such a foreign unsympathetic government as our own."

No political principle can ever be truer than what the great English statesman said: "Good Government is no substitute for Self-Government."

CHAPTER XII.

A GLIMPSE INTO INDIA BEFORE AND AFTER THE BRITISH OCCUPATION.

The following extracts from Elphinstone's *History of India* describe the general condition of the country in the 14th—16th centuries:

"The condition of the people in ordinary times does not appear to have borne the marks of oppression. The historian of Fírúz Sháh (A.D. 1351 to 1394) expatiates on the happy state of the ryots, the goodness of the houses and furniture, and the general use of gold and silver ornaments by their women. He is a panegyrical writer, and not much to be trusted; but he says, among other things, that every ryot had a good bedstead and a neat garden; and the mere mention of such circumstances shows a more minute attention to the comforts of the people than would be met with in a modern author.

"The general state of the country must, no doubt, have been flourishing. Nicolo di Conti, who travelled about A.D. 1420, speaks highly of what he saw about Guzerát, and found the banks of the Ganges (or perhaps the Mégna) covered with towns, amidst beautiful gardens and orchards, and passed four famous cities before he reached Maarazia, which he describes as a powerful city filled with gold, silver, and precious stones. Barbosa and Bartema, who travelled in the first years of the sixteenth century, corroborate those accounts. The former, in particular, describes Cambay as a remarkably well-built city, in a beautiful and fertile country, filled with merchants of all nations, and with artisans and manufacturers like those of Flanders. Even Ibn Batúta, who travelled during the anarchy and oppression of Mohammed Tughlak's reign (about 1340 or 1350), though insurrections were raging in most parts through which he passed, enumerates many large and populous towns and cities, and gives a high impression of the state in which the country must have been before it fell into disorder.

"Báber, in the beginning of the sixteenth century, although he regards Hindostan with the same dislike that Europeans still feel, speaks of it as a rich and noble country, abounding in gold and silver; and expresses his astonishment at the swarming population, and the innumerable workmen in every trade and profession.

"The part of India still retained by the Hindús was nowise inferior to that possessed by the Mahometans.

"Those of them who visited Bijayanagar are unbounded in their admiration of the extent and grandeur of that city; their descriptions of which, and of the wealth of the inhabitants and the pomp of the rája, are equal to those given by others of Delhi and Canouj.

"Other populous towns are mentioned; and Ibn Batúta[1] speaks of Madura, at the extremity of the peninsula (then recently conquered by the Mahometans), as a city like Delhi. The same author says, that through the whole of Malabár for two months' journey, there was not a span free from cultivation: everybody had a garden, with his house placed in the middle of it and a wooden fence round the whole.

"The seaports, above all, seem to have attracted admiration. Those on both coasts are described as large cities, the resort and habitation of merchants from every part of the world, and carrying on trade with Africa, Arabia, Persia, and China. A great home trade was likewise carried on along the coast, and into the interior.

"The roads may have been improved by Shír Sháh; but Ibn Batúta, 200 years before his time, found the highways shaded by trees, with resting houses and wells at regular intervals along a great part of the coast of Malabár, then under the Hindús.

"Báber informs us that when he arrived in India, 'the officers of revenue, merchants, and work-people, were all Hindus'." (Erskine's *Baber*, p. 232).

Lord Acton in his *Lectures on Modern History* says:

"The Portuguese came to India as traders (in 1497). Their main object was the trade of the Far East, which was concentrated at Calicut, and was then carried by the Persian Gulf to Scanderoon and Constantinople, or by Jeddah to Suez and Alexandria. There the Venetians shipped the products of Asia to the markets of Europe.

"It [Calicut] was an international city, where 1500 vessels cleared in a season, where trade was open and property secure, and where the propagation of foreign religion was not resented."

Says K. P. Mitra in his *Indian History*:

"The greatest king (of Vijayanagar) was Krishnadeva Raya (1509-29). He recovered the fortresses of Raichur and Mudkal and defeated the armies of Orissa, Bijapur and Golconda. . . . . He had a charming disposition, and was kind to the fallen enemy; and ever polite to foreign embassies (the emperors had good relations with the Portuguese). His pure and dignified life, his imposing personal

[1] The celebrated African traveller; he resided at the court of the Sultan Muhammad bin Tughlak from about 1341 to 1347 A.D.

appearance, his military prowess, his patronage of learning and learned men, his charity to Brahmans and endowment of temples, his constant attention to the welfare of his subjects are his claims to our remembrance as a very great king. The Portuguese writers are full of admiration for him.

"Foreign travellers have given us accounts of Vijayanagar—the Italian, Nicolo Conti (1420-21) visiting Devaraya II's court testifies to the beauty of the city and the military strength of the king. The Portuguese travellers, Paes (1522) and Unniz (1535-37), write about the wonderful wealth and splendour of the city. Abdur Razzak (1443-44), the Persian ambassador, was surprised that the citizens, high and low, wore ornaments of gold and jewels on arms, wrists, fingers and neck. Trade and commerce brought wealth and splendour. The fine arts—architecture, sculpture and painting—attained excellence. The emperors were great patrons of literature."

I—Pre-British Bengal.

"Captain Bowrey, about 1670, described Bengal as 'one of the largest and most potent kingdoms of Hindustan, blessed with many fine rivers that issue out into the sea, some of which were navigable both for great and small ships.' 'On the great river Ganges and many large and fair arms thereof,' he said, 'are seated many fairy villages, delicate groves and fruitful lands affording great plenty of sugars, cottons, lacca, honey, bees-wax, butter, oils, rice, grain, with many other beneficial commodities to satisfy this and many other kingdoms. Many ships of the Dutch, the English, the Portuguese do annually resort to lade and transport sundry commodities hence and great commerce goes on into most parts of account in India, Persia, Arabia, China and South Seas.'

"On this river [the Hugli] various European nations planted their early settlements at Hooghly, Chinsura, Baranagar, Chandannagar, Serampur, Bankibazar. The great town Hooghly owed its fame to this river. The hinterland of the town was extremely fertile and well drained, [now the hotbed of malaria]. That the town had one of the finest *choultries* (free rest-houses for all travellers) indicates that it was a busy resort for many merchants and travellers of those days. Near this town was the royal port of Satgaon, referred to by Ralph

Fitch in 1588, as 'a fair city for a city of the Moors and very beautiful of all things.'

"It is during the viceroyalty of Shaista Khan that we get another of those brief illuminating glimpses of Eastern Bengal from the pen of a European traveller writing at first hand. François Bernier, visiting Bengal in 1666, cannot say enough in praise of its wonderful fertility and abundance. 'You may there have almost for nothing three or four kinds of legumes,' he writes, 'which together with rice and butter are the most usual food of the meaner people ; and for a Roupy, which is about half a crown, you may have twenty good pullets and more geese and ducks in proportion. There is also plenty of many kinds of fish, both fresh and salt ; and, in a word, Bengal is a country abounding in all things."—Bradley-Birt, *l.c.* pp. 141-42.

We read elsewhere that "the country (Bengal) which is one of the most beautiful in the world, is extremely fertile ; there is a number of woods and forests of orange and lemon trees . . . . Sugar is very common . . . . The pasturage is excellent and it produces such an abundance of milk that an enormous quantity of butter and cheese is exported into all adjacent and maritime towns and even into the most distant countries, especially Batavia."

" 'As to the commodities of great value, and which draw the commerce of strangers thither, I know not', continues Bernier, 'whether there be a country in the world that affords more and greater variety : for besides the sugar I have spoken of, which may be numbered among the commodities of value, there is such store of cottons and silks, that it may be said, that Bengal is as 'twere the general magazine thereof, not only for Indostan or the empire of the Great Mogol, but also for all the circumjacent kingdoms, and for Europe itself. I have sometimes stood amazed at the vast quantity of cotton-cloth of all sorts, fine and others, tinged and white, which the Hollanders alone draw from thence and transport into many places, especially into Japan and Europe ; not to mention what the English, Portugal and Indian merchants carry away from

those ports. The like may be said of the silks and silk-stuffs of all sorts: one would not imagine the quantity that is hence transported every year'."

Bradley-Birt in his *The Romance of an Eastern Capital* further says:

"The last year of the thirteenth century marks the opening of a new era in the history of Sonargaon. In that year the Emperor Alla Uddin divided the government of Bengal into two parts, and appointed Bahadur Khan to be governor of the eastern portion, with his capital at Sonargaon. For the next three hundred years it remained, with varying fortunes, the seat of the Mussulman government in Eastern Bengal. It was a troublous period that was opening for the newly formed province. Events succeeded one another with startling rapidity. Situated on the easternmost limits of the empire, it had all the advantages and disadvantages of a frontier province. Free from immediate control, Viceroy after Viceroy was tempted to throw off his allegiance and proclaim his independence. Time and again the empire, beset on every side, was forced to relax its hold. *To the people these things mattered not at all. They were content to sit by, unmoved spectators of the drama,* yet perhaps not without a touch of humour, as they watched their rulers fall out and war continually among themselves. Still, though these contests interested them but little, in other directions the mass of the people felt to the full the advantage and disadvantage of their position on the frontier of the empire. On the one hand Eastern Bengal enjoyed an immunity from strife and bloodshed unknown in the lands that lay nearer the heart of the empire, where great issues were constantly at stake, and vast armies for ever passed to and fro, leaving ruin and desolation in their wake. Though the lot of the cultivator in Eastern Bengal was by no means a secure one, yet he suffered comparatively little from these human locusts. It was no easy country for the transport of troops, and the armies that came this way to subdue some rebellious Viceroy, or to attempt the conquest of Assam, wandered little afield from certain well-defined highways, keeping always close to the

great rivers. Delhi was far off, and the journey down through Oude, Behar, and Bengal, was beset with difficulties and a matter of many days. Sonargaon, set in a circle of great rivers, was inaccessible by road for a great part of the year, and well fitted by nature to defy attack." (Italics are mine).

II—Bengal During the Reign of Aurangzib.

Here are a few extracts from Stewart's *History of Bengal*:

"Having, in the preceding pages, given what may be termed the dark side of Moorshud Cooly Khan's picture, we have now much pleasure in reversing the object; although we fear the portrait will still not be approved of by Englishmen.

"His judicial decisions were so rational and proper, that they were as much respected and obeyed as the decrees of those monarchs whose names are most renowned for equity and justice.

"He always provided against famine, and severely prohibited all monopolies of grain: . . . . . If the importation of grain to the cities and towns fell short of what had been usual, he sent officers into the country, who broke open the hoards of individuals, and compelled them to carry their grain to the public markets. . . . . He also strictly prohibited the exportation of grain.

"No zemindar or Aumil could, with impunity, oppress any one: vakeels were continually in search of complaints."

Stewart has to apologise lest "the portrait may not be approved of by Englishmen!"

I quote below the verdict of a Bengali historian, who has made *India under Aurangzib* his life-long study.

"He [Mir Jumla] did nothing which does not reflect the highest credit on him. No other general of that age conducted war with so much humanity and justice, nor kept his soldiers, privates and captains alike, under such discipline; no other general could have retained to the last the confidence and even affection of his subordinates amidst such appalling sufferings and dangers. . . . . On the day when he crossed the Kuch Bihar frontier, he issued strict orders forbidding plunder, rape and oppression on the people, and saw to it that the orders were obeyed.

"At the time of the retreat from Assam, he forbade his army even more strongly than before to molest the peasantry of the country or to rob their goods. We realise Mir Jumla's peculiar excellence more clearly by contrast with others. When his eagle eyes were removed,

the Mughal officers began to oppress the people of Kuch Bihar and lost that kingdom by exciting popular hatred.

"With the coming of Shaista Khan as governor the scene happily changed. His first viceroyalty of Bengal extended for 14 years (1664-1677). During this unusually long period of office in one province, he first ensured the safety of the Bengal rivers and sea-board by destroying the pirates' nest at Chatgaon, won over the Feringi pirates and settled them near Dacca.

"His internal administration was equally mild and beneficent.

"Every day he held open Court for administering justice and redressed wrongs very promptly. This he regarded as his most important duty. In his own jagir he ordered that everything collected by the revenue officers above the fixed rent should be returned to the cultivators.

"But Ibrahim Khan's character had some redeeming features; the English traders call him 'the most famously just and good nabob', and the Muslim historian records that 'he did not allow even an ant to be oppressed'. He personally administered justice, was free from venality and caprice, and promoted agriculture and commerce.

"Two days in the week he [Murahid Quli Khan] administered justice in person, and was so impartial in his decisions and rigid in their execution that no one dared to commit oppression . . . . . He did not place absolute confidence in his accountants, but himself examined the daily accounts of the receipts, expenditure and balances and then signed them.

"Under him Bengal entered on a career of peace and marvellous material prosperity."—J. N. Sarkar.

I am tired of the parrot cry that it is the *pax Britannica* which is mainly responsible for over-population—that frequent domestic wars do not now decimate the people and that plague and pestilence have become things of the past. It is true that a Timur, a Nadir Shah, or an Ahmed Shah Abdali at intervals of a century or two made onsets; but their ravages seldom reacted beyond the confines of Delhi or some of the capital cities. As far as Bengal is concerned the Mahratta incursions during the viceroyalty of Aliverdy devastated the districts of Burdwan and portions of Bankura and their duration was only for eleven years. The petty wars, more properly squabbles, between the Moguls and the Pathans, which lasted at intervals from the time of Akbar to that of Jehangir, were also more or less localised near the seats of Government—their effects were

scarcely felt in the remote outlying villages. European historians, used to deal with the "wars of the Roses," "the seven years' war" or the "Napoleonic wars", are apt to confound the temporary effects of the petty skirmishes in Bengal, Behar and Orissa with the former.

Indeed, it is the fashion with a certain class of English writers on India to depict Bengal in sombre hues at the time of the battle of Plassey and to insinuate that the Bengalis were rescued from the oppression and rapacity of their rulers and that the advent of the British was a Godsend. Fortunately there are impartial authorities having extensive local knowledge, who have presented us with the obverse of the picture. Says Malcolm:

"The country of Bengal has ever been famous for the wealth and talent of the higher classes of its Hindu inhabitants; and we find, throughout its history, that these have filled the chief offices of the state. This was the case at the period of which we are treating. The managers and renters—of whom Ramnarain, the governor of the province of Patna, and Raja Ram, the manager of Midnapore, were the principal—were almost all Hindus. Nor were the station and influence of this tribe less *in the army* and at court. Monick Chund, who had been governor of Calcutta, held a high military rank, and Roydullab, the dewan, or minister of finance, had great influence which was increased by his being intimately associated with Jugget Seit, the representative of the richest soucar, or banking firm, in India; and who, through means of his riches and extensive connections, possessed equal influence at Lucknow and Delhi as at Moorshedabad."—*Life of Robert, Lord Clive.*

Lord Clive testifies that "the city of Moorshedabad is as extensive, populous, and rich as the city of London; with this difference, that there are individuals in the first possessing infinitely greater property than any in the last city."—Evidence before the Parliamentary Committee.

Speaking of Omichund and Juggat Set, two rich bankers under Nawab Siraj-ud-dowla, Torrens observes:

"The notoriety of their opulance, the habitual security in which they lived, and their great political power, is in itself a comprehensive refutation of the ignorant pretence that these Governments were the mere transient and capricious alternations of despotism. Credit is brittle ware at best, and needs all the care and shelter of what is esteemed the subtlest system of civilisation to preserve it unharmed; and banking is

precisely that part of the credit system most susceptible of injury from the breath of violence, and most sure to perish at the very apprehension of arbitrary usage. The bankers of India could no more have accumulated their vast wealth, and maintained their importance in the State, had they not been exempt from the fear of outrage, than the exotics, we have borrowed from their land, whose luxuriance we protect in houses of glass, could gain or preserve that luxuriance if exposed to the rude caprices of our fickle weather. The universal safety of oriental Bankers is still more instructive when we learn that their riches generally lay in securities of various kinds, which they held of men of every class, from the trader to the prince. Without their aid, no Government ventured to undertake permanent or expensive schemes. Their friendship was courted by the Minister, and purchased by favours from the throne."—*Empire in Asia* (1872).

III—Bengal as She is To-day.

I have given above an account of Bengal culled mainly from European writers immediately before the battle of Plassey, as it is oftentimes the custom to quote chance opinions of Governor-Generals and other high authorities to prove that Bengal, or for the matter of that, India was rescued from tyranny and rapine.[2] This no doubt is purposely meant to apply a sort of salve to the qualms of conscience of an average Englishman who is supremely ignorant of Indian affairs. It is conveniently forgotten or ignored that Bengal at any rate was contented and prosperous in the pre-British days, and according to the testimony of European writers, was overflowing with milk and honey. It is only after the battle of Plassey that the "Plassey drain" began (Vol. I. p. 432) and the land got exhausted of its wealth.

It is again constantly dinned into our ears that under the *Pax Britannica*, the people do not get killed by the constant wars prevailing previously, and *famines and pestilences have become*

[2] "It is a proud phrase to use, but it is a true one, that we have bestowed blessings upon millions . . . . . The ploughman is again in every quarter turning up a soil which had for many seasons never been stirred except by the hoofs of predatory cavalry."—Lord Hastings, February, 1819.

This only applies to the transitional period following in the wake of the decay of the Moghul Empire.

things of the past. It is but natural that unless they practise birth-control and thus impose the Malthusian check on population, they must die like flies. This is a fiction propagated by the poet of Imperialism and others of his ilk.

A cursory glance through Chapter VII will convince any honest reader that these scourges which levy such a huge toll every year in ill-fated Bengal were scarcely known six decades ago ; somehow or other they have synchronised with British rule. Tuberculosis has no doubt been endemic in India from time immemorial ; it is mentioned as Râja Yakshâ in the ancient Ayurvedic works but its victims were few and confined chiefly to old age ; whereas this scourge is now spreading like wild fire.

As has been shown above the spread of malaria has followed in the wake of drainage obstruction due to railway embankments. Dr. Bentley, while laying stress upon this aspect, has not hesitated to call it also the *hunger-disease.* Malnutrition which brings on debilitated constitution and deprives the victim of resisting power is equally responsible for the havoc of malaria and tuberculosis. Water famine has also followed in the wake of British rule. The daily papers of late (April, May and June, 1934) contain bitter wails and lamentations from various mofussil districts on the scarcity of drinking water. Human beings and the cattle drink from the same muddy pools. I have just returned from a tour in the Sunderban regions (May, 1934). Extensive tanks (miniature lakes) excavated by Raja Pratapaditya and the local Zeminders in the bygone ages have silted up and some have become choked with weeds over which the cattle graze. The piety of the former landlords—Hindu and Moslem—made it a code of religion to secure a supply of good drinking water. Rani Bhawani of pious memory scattered broadcast hundreds of tanks in her extensive Zemindaries, Natore, Rajshahi and elsewhere ; her unworthy descendants, however, have allowed these to fall out of repair. Now the Zemindaries have passed into the hands of the absentee Calcutta proprietors, who never look after the welfare and health of the tenants (*cf.* Vol. I. p. 14 *et seq*). Neither

does the government think it any concern of its to see that millions do not suffer from water-famine and die of cholera. In fact the callous indifference of our rulers is the most lamentable episode in this respect.

Bengal at any rate was seldom decimated by domestic wars in the pre-British days, and early marriage was also in vogue. The growing increase of population is no doubt a cause of anxiety and the land is becoming congested. English writers naturally fight shy of one important aspect of the economic problem, nay, they are reluctant to admit it. During the British regime the home or cottage industries have been one by one ruined—tens of thousands of weavers and spinners, lohars (iron-smiths), braziers, carters, boatmen, and crews have been thrown out of employment (*vide* Vol. I. pp. 353, 365, 372). In order to eke out their miserable existence they have turned to the plough as a last recourse ; hence the keen competition for land with its attendant evils (see p. 164). The British rulers of India have all along looked on with glee, nay, they have helped, the ruin of our cottage industries, as their sympathies have naturally been enlisted on the side of Lancashire, Birmingham and Sheffield. Had India a national government she would all along have taken care to safeguard her own interests and by spread of mass and technical education with model factories attached to technological institutions enabled her people to stand on their own legs and meet the keen competition.

But our rulers waxing fat upon the produce of the ryot looked on not only with stolid indifference but with grim satisfaction as they found that their "home" industries were forging ahead due to the political supremacy they had acquired.

It is exactly from this point of view that British rule suffers in the estimation of the Indian people. Prof. Seeley rightly says that the wars in which Clive and his successors got involved on the soil of India were meant to counteract the designs of France and latterly of Russia. Whatever motives might have actuated the policy, the glaring fact

remains that India has come to be regarded as a dependency or a "possession" in the eye of the average Britisher. Let us for a moment suppose that France or Russia, one of the rival powers, is in place of England. I am by no means enamoured of the policy of France towards her dependencies on the north of Africa or in the Indo-Chinese area. Inspite of her slogan—*liberité, egalité et fraternité,* Republican France, I am afraid, will suffer by comparison with the methods of the British in India ; nor need I hold any brief for Russia under the Czars or under the Soviet regime. But one fact stands in bold relief. Neither France nor Russia has been an industrial country, at least not in the sense in which England is. Had any of them been in possession of India her cottage industries would not have been killed and bread would not have been snatched away from millions of her artizans and handicraftsmen as indicated above (*cf.* Vol. I. p. 372). They being agricultural countries would not have been instrumental in bringing about the economic prostration of India.

It is significant that whenever a new province has come under British rule, almost simultaneously her home or cottage industries have been destroyed at the instigation of powerful British interests. The way in which the salt manufacture of Oude and Bengal has been crushed out of being is at once a disgrace and a scandal to the Indian Government. Mr. Irwin, whose commiseration for the poor of Oude has led him to break through official reserve, says :

"The three principal industries under native rule were cotton-weaving, salt-making, and spirit-distilling. Of these, the first has been crippled by Manchester competition; *the second has been annihilated, so far as legislation can annihilate it, and the occupation of a numerous caste destroyed* . . . The salt manufacture having been crushed, £400,000 worth of salt is imported annually." (Italics are mine).—*The Garden of India,* p. 30.

Sir R. Temple says :

"All these tracts (Malabar and Coromandel coasts) are still made to yield salt, except the delta of the Ganges and the upper ports of the Bay of Bengal. *In these excepted tracts, the manufacture of the salt, once so extensive, has been suppressed, in order that an import*

duty might be levied on the salt imported from England."[1] (Italics are mine).—*India in 1880*, p. 237.

Thus, bread has been taken out of the mouths of hundreds of thousands. The Cheshire labourer can make his voice heard, but the groans of the poverty-stricken millions of India do not reach those shores. Mr. H. N. Brailsford, who has seen India with his own eyes, has some very impartial and sound views on this point, in his work, *Property or Peace* (1934):

"I venture, none the less, to argue that this belief (that our rule has been an unmixed blessing to India) is a delusion. We certainly brought what are called the 'blessings of Western Civilisation,' meaning chiefly order and applied science, but we more than balanced these gifts by the injury that we inflicted on India's will by our autocracy, and on the self-respect of a sensitive and courteous people by our racial arrogance. Through a century and a half the powers of action of this people went not merely undeveloped, they were lamed and fettered, partly by our bureaucratic rule, but also by our real superiority in applied science and the arts of organisation. India suffered these blessings; she could not react to them, test them, modify them, adapt them to her needs and character. Hers in this modern world is a startling and painful case of arrested development. Though we brought our railways and our machines, the effect of our conquest was rather to retard India's adaptation to the industrial age. But for our coming, it is arguable that some vigorous native power, perhaps the Mahrattas, would eventually have brought order into the transient chaos caused by Mogul decay. India would then, like Japan, have turned what she freely borrowed from the west to her own uses.

* * * * *

"There is even to-day no system of universal compulsory education, and most of such elementary schooling as is provided for the masses is of pitiful quality. To this, in part at least, we must refer the ill-health of this population, whose average expectation of life is 23·5 years against 54 years in England, the slow progress of the campaigns against malaria and other preventable diseases, and infantile death rates in the larger towns that range through figures four and even six times higher than that of London.

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[1] So early as 1833 we find Mr. Wilbroham moving a "clause prohibiting the exclusive manufacture and sale of salt by the Government of India, the object of which motion was to secure a new market for the salt of Cheshire."—Wilson's continuation of Mill, vol. ix., p. 381.

"In imposing Free Trade on India its British rulers doubtless believed that they followed the dictates of economic wisdom. Science was kind to Lancashire.

"The heaviest injury of this free trade policy fell, however, not on India's capitalists, but on her handicraft workers. Very gradually, yet by an irresistible doom, the weaver, the potter and the smith were reduced to penury and despair by the competition of British machines. The deficiencies of transport delayed their fate, but to-day when motor buses carry the housewives of the remotest villages into the towns to do their marketing, the end for these skilled craftsmen is in sight. This was, the reader may object, inevitable in any event: the machine and not the empire is the villain. No: if machine industry had been developed earlier in India by Indians, it would have provided occupation on a much greater scale for the displaced hand workers.

* * * * *

"Our policy, which in effect retarded the growth of native machine industry, and destroyed native handicrafts, drove the population to a single resource, *the cultivation of the soil*. The over-crowding has been progressive, for wherever research has investigated the history of the land, it is evident that the acreage of the typical holding has dwindled steadily from generation to generation, till in many regions it cannot yield an adequate subsistence.

* * * * *

"And, in fact, over wide areas of India they live as they must, on the barest margin of survival, in mud huts, with a few mats and pots as their sole possession, often without a change of clothing, on a diet of rice and pulses that supplies a minimum of energy to their slight and emaciated frames. In some districts Nature seems to have bred a race who can sustain their puny bodies on an allowance of proteids and vitamins that would nourish a shadow. They rear their malarious children, who never taste milk, to a heritage of ignorance and debt, enjoyed through half the normal span of life. One is forced in these villages to realise the pitiable inadequacy of the slow, small-scale reforms as yet attempted. Nothing will be of much avail till a revolutionary plan, conceived by an audacious imagination and executed by a ruthless will, breaks up these little holdings, imposes a rational system of husbandry, produces with a fraction of the present rural labour-force a vastly richer harvest from the soil, and transfers the rest of this wasted labour-force to industry and to services that bring comfort and health. Such plans are not conceived in Delhi to-day by Anglo-Indians; they will not be framed by any Indian Ministry that can issue from the Round Table. I know only one place where such plans are made to-day: it is Moscow."

CHAPTER XIII.

IMPERIALISM—ANCIENT AND MODERN.

"By the great bulk of our countrymen, Hindostan is looked upon as a large country which affords a convenient place for the younger sons of respectable families to acquire fortunes. About the people we make ourselves perfectly easy".—Quoted by Sir James Caird.

"One people may keep another as a warren or preserve for its own use, a place to make money in, a human cattle farm to be worked for the profit of its own inhabitants. . . ." - J. S. Mill: *Representative Government*, Chap. xviii.

The growth of modern civilization "consists essentially in the development of man's command over nature. For many thousands of years, generation after generation of mankind went on living in the possession of vast potential resources of production which they lacked the knowledge to use. There was coal under the earth ; there were rich mineral deposits of many other kinds. Vast latent powers of fertility existed in the soil and in the unexplored possibilities of breeding and selection of crops and stock. The powers of steam and electricity were there, unknown and unused. To-day, mankind has knowledge of these things ; and for good and ill, modern western civilization is the outcome of this knowledge. But how much remains unknown ; and of what is known, how small a proportion of the human race has yet been able to take advantage! The great majority of the earth's inhabitants are still living in India and China and Africa under essentially primitive conditions ; and even in the more developed countries far less than full use is being made of the constantly expanding powers of production."

"Yet it is in the nature of these powers to expand fast and continuously, as soon as any section of the human race has escaped from the bonds and traditions of a static form of society. One invention leads to another in an endless chain of development ; and science . . . . is constantly throwing off

discoveries which become of the greatest importance in the economic sphere. The new producting capacity having taken firm root, if the world really recognised the brotherhood of man . . . . all countries would be working together to promote the economic development of the world as a whole and to lift the inhabitants of Asia and Africa out of their secular indigence ;"[1] and in this process, apparently philanthropic, they would have benefited themselves.

But unfortunately man's moral progress has lagged enormously behind the development of his powers for production. He has even lost his living faith in the doctrines and ethical principles preached by Confucius, Buddha, Socrates and Christ. While the triumphs of modern science, its railroads, and steamships and aeroplanes, the telegraph, the telephone and the wireless, have made intercourse extremely easy between the peoples of the world, and tend to make it one social and economic unit, sectarian intolerance, colour prejudices, racial hatred, international rivalries and cultural conflicts have disfigured a large part of the fair surface of the earth. These new instruments and powers are in fact being handled by a generation of men whose mental outlook is still in practice as barbarous as that of the ancient Huns, or the conquering central Asian hordes of the middle ages, or the African slave-hunters of the seventeenth century. If rightly understood and utilised "this progress in productive capacity should have taken us, in every country, not excepting the countries of the Far East, a long way towards solving the problems of poverty and should have made the whole world richer, healthier, happier, more intelligent and more confident about the future" (Cole). But the baser and coarser elements in man, the instinctive desire of the strong to exploit the weak have pushed completely in the background such noble precepts as "Love thy neighbour as thyself" or "Do unto others as you wish others would do unto you"; though curiously enough his economic

[1] The quotations here are taken from Cole's *The Intelligent Man's Guide through World Chaos*. Pp. 51, 112.

salvation lies in accepting and acting up to these ancient elevating doctrines.[2] The result has been the advent of a new kind of imperialism, under the banner of which the industrial powers of the West and their still more efficient pupil in the East—Japan—have brought the peoples of Asia and Africa under subjugation or have carved out spheres of economic influence. The motive behind is not far to seek—it is to secure a protected market for industrial goods, exclusive control of new material resources and supply of raw materials by the cheap labour of men kept under subhuman conditions of existence.[3]

India has been under the heels of the strongest Imperial Power in the world for more than a century and a half. Attempts to release this strangle-hold are resisted on grounds which are themselves sufficient to condemn the whole system. The diehards in England point out—(1) that India is a miserably poor country where the people are living on conditions of semi-barbarism ; (2) that the vast mass of people are ignorant of politics and too illiterate to understand the affairs of Government ; (3) that the English rule is good for uplifting this semi-barbaric mass of mankind and that it has already achieved a great spread of Western civilization amongst certain sections of the people ; (4) that the Indian, as such, is yet incapable of self-rule and requires for his internal and external protection the strength of the British army. What self-respecting Briton will not hang down his head in shame if such is the result of his rule extending over 175 years!

I—British Imperialism.

The diehard politicians of to-day are no better than the demagogues of ancient Rome—the "highest bidders of bread

[2] The acute distress in all parts of the world to-day leads inevitably to the conclusion, that in our interacting economic system, you cannot but share the misfortune of your neighbour.

[3] As extreme examples of the unthinkable cruelty and barbarism of which modern Imperialists are capable, I may cite the inhuman administration of Belgian Congo under King Leopold and the Denshawi affair and the Jalianwala Bag massacre (Amritsar).

and circuses." Cæsar's supremacy could only be purchased by colossal bribery of the citizens of the Eternal City. As I read Antony's oration[4] I am reminded of the heroics of Mr. Winston Churchill and Lord Rothermere. Mr. C. F. Andrews thus writes of the mischievous propaganda in England to maintain the British Imperialism in India in all its brutality:

"Few things have been more disturbing and disconcerting during the past year than the alarming growth of anti-Indian propaganda in all the countries of the west and the extreme difficulty of counteracting it by publishing the truth. Not merely in Great Britain but in America and in every western country this propaganda is being carried on.

"In England, the growth of hostility towards Indian aspirations has been vast. It has been subsidised by those who have very large resources at their command and are quite openly ruthless in their methods. The greatest offender of all is the London 'Daily Mail' with its large group of syndicated papers in the provinces; Lord Rothermere is cynically brutal in the arguments which he employs in the leading columns of his own daily paper. A head line will appear for two or three days, announcing that Lord Rothermere is going to occupy the middle column with an important article on India on such and such a date. Then the article itself appears with big head-lines to call attention to it, and a notice is placed on the outside page in red letters. Street placards also call attention to it in big letters as the main subject of interest for the day.

"The article is usually of the pre-war type declaring that India 'is our own possession and we must not lose that which our ancestors won for us by the sword.'—(I am paraphrasing his leading words). Imperialist declarations as crude and gross as this form the stock-in-trade of his appeal. In the second place, the claim is made that one-fifth of the income of every English household depends upon Englishmen maintaining their hold on the Indian Empire which is the keystone of the British Empire. 'Once let India out', the cry is raised by Lord Lloyd and Winston Churchill alike, 'and the whole British Empire falls to pieces'

Ant. Here is the will, and under Cæsar's seal.
To every Roman citizen he gives,
To every several man, seventy five drachmas.
* * * * *
Moreover, he hath left you all his walks,
His private arbours and new-planted orchards,
On this side Tiber; he hath left them you,
And to your heirs for ever.

"The third argument which Lord Rothermere uses is that of unemployment. 'We built up our population in Great Britain on the money and trade we derived from the Indian Empire. If we lose that Empire which our forefathers won for us, then instead of two to three million unemployed we shall have six million on our hands. England is over-populated if we have not got India with its great wealth to fall back on'.

"I have mentioned the name of Lord Rothermere as one of the Big Four in the newspaper world. Lord Beaverbrook often runs him close in the inflammatory things he publishes in the 'Daily Express'. Then comes the 'Morning Post', which for many months past has made 'India' a scare headline running across two columns; if the very least bit of news comes through about a Hindu-Muslim riot or something to do with untouchability in which Hinduism can be blamed, the news is written up with warnings that Great Britain cannot 'desert' India. It is pointed out that it is impossible in a country where such dreadful things have happened to give the enemies of the voiceless masses Swaraj or independence. India is a 'Great Dependency' and it will be long time before any step further can be taken in entrusting responsibility to Indians.

"Here again the crudest pre-war conception is taken of the relation of India towards England. The idea of conquest predominates, and no other conception is even conceivable. The phrase 'our Indian Empire' is repeated day after day."[8]

The *Statesman* (Oct. 3, 1934), in a leaderette, observes:

"Mr. Aidan Crawley has contributed to the *Sunday Despatch* a deplorable article on India. We are indebted for this information to the *Amrita Bazar Patrika*, which reprints the article and writes an indignant leader. We are not sure that our contemporary is wise to have given it this prominence, for few people in Britain will regard this Kent cricketer, who, we believe, crossed India last cold weather on his way round the world, as an authority. Nevertheless, the *Sunday Despatch* is one of the Rothermere papers with a mammoth circulation, and it is a

[8] *Cf.* "Mr. Hearst in America (like Lord Beaverbrook in England) is the master of a whole chain of newspapers. Views of life like those just quoted are carried with all the powerful suggestibility which the modern newspaper can exercise simultaneously to perhaps a hundred organs scattered across the vast North American continent. . . . . Where the academic economist can reach ten minds, Mr. Hearst can reach a million."—Norman Angell.

"The two largest groups of our daily papers (the Beaverbrooks and Rothermeres) are owned by very wealthy men having very extended financial interests."—*Ibid.*

grave scandal that such ignorant stuff should be allowed to see the light."

Mr. Winston Churchill, who has made himself the mouthpiece of rabid imperialism, has evidently inherited it from his late father, who was Secretary of State for India for a short time.[6] He like his father has only the unemployment at "home" before his mind's eye. The welfare of 350 millions of Indians counts as feather's weight with him. Anyhow they must be forced to buy Manchester cottons and not allowed to build up their textile industry. The half-a-century which has since elapsed has made no difference in the son's outlook.

Mr. Churchill, when he held high office in the Cabinet as Secretary of State for the Dominions and Colonies at the time of the Imperial Conference in 1921, said:

"India was now coming into our affairs and councils as a partner, a powerful partner. We well knew how tremendous was the contribution which India made in the war in 1914, how when there was no other means of filling a portion of the front by men from any other part of the whole world there came the two splendid Indian corps which were almost annihilated in the mud and the shell-fire of that terrible winter in Flanders."

Again:

"We owed India that deep debt and we looked forward confidently to the days when the Indian Government and people would have assumed fully and completely their Dominion Status." Mr. Churchill was profuse in his gratitude to India. But politicians have short memories. The poet in bitter anguish of mind exclaims:

"Earth is sick and Heaven is weary
Of the hollow words that
States and Kingdoms utter
When they talk of truth and justice."

[6] "Just for one moment look to India. India is your one great free market; it is the one great port of the world where your manufactures enter without being hindered by any duties. Without India, the unemployed at Birmingham would reach such enormous numbers as to become perfectly dangerous to social order."—R. Churchill, Oct. 23/85.

II—Ottawa Pact.

Years ago Henry Fawcett said that India's partnership with England is illustrated by the adage that unequal partnership is always disadvantageous to the weaker side as in Æsop's lion entering into partnership with the fox. India is pulled along at the tail of England. This is well evidenced by the Ottawa Pact under which India "enjoys" Imperial Preference. The Director of Commercial Intelligence (Dr. Meek) has recently published an account of India's export to England. It is found that in the major heads, *e.g.* rice, jute, steel, pig iron, etc., there has been no appreciable gain ; nor has there been any larger demand for Indian coffee and tea.

"Anticipations regarding vegetable oils have not been realised. Actuals fell terribly short of expectations. Protagonists of the Agreement have always waved linseed as a trump card. No doubt, our exports of linseed to the United Kingdom have shown an encouraging rise, but the reason thereon is to be sought not so much in Preference as in the fact that the crop in Argentine and U. S. had failed. As a result, not only the United Kingdom but nearly all the foreign countries increased their purchases from India. As a matter of fact, the increase in our exports of linseed to non-Empire foreign countries in a very large number of cases has been greater than the increase in our exports to the United Kingdom. It would be rather difficult for advocates of Imperial Preference to explain away the figures of India's exports of linseed in the year 1933-34."

On the other hand, India has to buy British steel at higher price, because German and Belgian steel has been kept out by a high tariff. Continental countries are now having their revenge by erecting tariff walls or by taking retaliatory measures against the Indian exports. India has thus been a loser in every way. In fact, England's commercial relations with India may be summed up as "Heads we win, tails you lose."

Mr. Nalini Ranjan Sarkar, in an able and exhaustive analysis of Ottawa Agreement, sums up thus: "The conclu-

sion seems to be inevitable that the United Kingdom has gained a better advantage than India. The most disquieting feature of the Ottawa Agreement is that it sets definite limitations to Indian people in their choice in the matter of concluding advantageous commercial treaties with non-Empire countries so as to secure possible economic advantages in her foreign trade. To that extent the loss to the Indian consumers, who are also producers to a great extent of primary commodities, has been considerable indeed."—*Calcutta Review*, Oct., 1934.

The Report of the Indian Trade Commissioner of Hamburg also goes to confirm the above conclusions:

The report under reference will surely be an eye-opener to the supporters of the Ottawa Agreement. Dr. Meek's report attempted to show that India's exports to Britain have increased as a direct result of the operations of the Ottawa Preferences. The increased exports of raw jute, cotton, hides and oil-seeds to the different European countries during the year 1933-34, without any stimulating factor like the Ottawa Pact, conclusively prove the hollowness of the arguments adduced by the Ottawa champions. On the contrary, this discriminatory preference to Britain has been responsible for the ousting of Indian tea by the inferior Java tea in the Continental markets.

III—Tea and Coffee.

The tea restriction scheme which embraces all tea-producing countries and which is now in full operation may be regarded as responsible for either stabilising the position reached in 1932, so far as imports are concerned or even causing a decline in those imports during the year under review. France and Germany are the two main countries in Northern Europe excluding Russia, which import tea in any quantities. The former reduced her purchases of Indian tea in 1933 by nearly 50 per cent. as compared with the previous year. China tea has not only maintained its previous position, but even improved on it during 1933. But the most noticeable feature

is the phenomenal increase in the import into France of Java tea.

The Tariff Board recently appointed had for its object the devising of means for giving protection to the Indian iron and steel industry ; but it took good care to consider the interests of the British Steel Federation first. This initial weakness of the Board has resulted in immense loss to India. Secondly, the Government of India's extraordinary concern for the British steel manufacturer can by no means be said to have been in keeping with real autonomy. If the British manufacturer required protection against the Continental manufacturer there were the British Government to devise ways and means for it. The Indian Government were not entitled to make any sacrifice for this purpose. Lastly, the Finance Member's threat to withdraw the Bill in case the British industry was not favoured in the way he wanted cuts right across the whole conception of autonomy.

The fact that there were some Indian members on the Board makes the situation worse. For, there are always at the command of the Imperial Government Indians ready to barter away the country's best interests at its bidding. For a handful of silver and for a riband to stick in his coat the place hunter will be ever ready to do the dirty job. It is, indeed, significant that Australia, a member of the British Commonwealth, makes short work of Ottawa Pact, as she shuts out Lancashire cotton by a tariff wall. The recent Indo-British trade pact has hardened even the Ottawa Pact inasmuch as the very few privileges given to India under the Ottawa Pact have been snatched away. Indian autonomy has vanished.

IV—Fall of Empires.

Slaves from conquered countries in ancient days were dragged behind the chariot of Imperial conquerors ; and we have its counterpart to-day in the idea that the teeming, starving, dumb millions of India must for ever be tied to the Imperial chariot—that the aspirations of their politically conscious elements must be smothered! We read of "the Senate and

Roman magistrates" looking on the provinces as the estates of the Roman people in whose prosperity they took but little interest.' And the British people voice the same feelings when they speak of "Our Indian Empire."

Vain delusion! No nation ever became great by ruining and plundering subject peoples. Christian holy fathers uttered benedictions upon the exploits and atrocities of Cortez and Pizarro; and shiploads of silver poured into the treasury of the Spanish monarch. Yet this sudden accession of wealth coupled with the manner of acquiring it proved the undoing of Spain: within half a century of the abdication of Charles V, Spain was reduced to a second rate power wallowing in ignorance and superstition. The greatness of a nation springs from the moral and intellectual qualities of its citizens, and when this moral fibre is sapped by vicious thoughts and unjust deeds associated invariably with the government of peoples held under subjugation by force of arms, the fall is inevitable. History teems with instances of periodical ups and downs, rise and fall of great nations. Archæologists have brought to light sanitary arrangements in the cities of ancient Crete which rival modern ones. The recent excavations at Mohenjo Daro have revealed an astounding culture flourishing between 4000 and 2000 B.C., when the inhabitants dwelt in great cities built of burnt bricks with wide roads laid at right angles, and having an elaborate system of drainage, water-supply and public baths. The New Zealander watching from the broken arches of London bridge the ruins of the great city is no mere poetic fancy!

Awful prognostications naturally arise in the mind of man when he realises his own littleness. In the days of Strabo, there was an epitaph on the grave of a Persian monarch:

> "Oh, man! I am Cyrus, king of Persia
> Envy not the little patch of earth which covers me."

When England was flushed with a new spirit of Renaissance,

Rostovtzeff: *A History of the Ancient World*, Vol. II. p. 88.

and the material accession of new wealth, the poet Shirley struck a warning note:

> "Sceptre and crown must tumble down
> And in the dust be equal made
> With the lowly scythe and spade."

And again the great poet sang:

> "Imperial Cæsar dead and turned to clay
> Might stop a hole to keep the wind away!"

In our own times, mighty imperial dynasties have tumbled down—the Hohenzollerns and the Habsburgs, where are they! On the thrones of the Romanoffs, and of Sulieman the Magnificent, sit now upstarts with revolutionary ideas of statecraft!

The fiat had gone forth—*Delenda est Carthago;* but when Scipio beheld Carthage in flames, his soul was softened by reflections on the instability of fortune, and he could not avoid anticipating a time when Rome herself should experience the same calamities as those which had befallen her unfortunate competitor. He vented his feelings, by quoting from Homer the well-known lines in which Hector predicts the fall of Troy:

> "Yet come it will, the day decreed by fates;
> (How my heart trembles, while my tongue relates!)
> The day when thou, imperial Troy, must bend,
> And see thy warriors fall, thy glories end."

In the same melancholy strain also sings our Sanskrit poet:

> यदुपतेः क्व गता मथुरापुरी
> रघुपतेः क्व गतं चोत्तरकोशलम्
> इति विचिन्त्य कुरु स्वमनः स्थिरम्
> नसदिदं जगदित्यवधारय ।
> चलच्चित्तं चलच्चित्तं चलज्जीवन यौवनं,
> चलाचलमिदं सर्व्वं कीर्त्तिर्यस्य स जीवति ।

[Where is Mathura, the city of the king of the Yadus? Where is Oude, the seat of the kingdom of the Raghus? Consequently put your mind at ease. Everything in this world is transitory; good deeds alone survive.]

But behind this evanescent glories of Empires, there may lie a record of human achievement of a permanent value though less spectacular ; and so sings Mary Coleridge :

"Egypt's might is tumbled down
Down a-down the deeps of thought;
Greece is fallen and Troy town,
Glorious Rome hath lost her crown,
Venice's pride is nought.

But the dreams their children dreamed
Fleeting, unsubstantial, vain,
Shadowy as the shadows seemed,
Airy nothings, as they deemed,
These remain."

V—Growth of Nationalism in India.

"History, in the ordinary sense of the word, is almost unknown in Indian literature. For, according to the eminent French philosopher, Cousin, this great deficiency in Sanskrit literature is due, in no inconsiderable measure, to the doctrines propounded in the Bhagavadgîtâ itself."—*Introduction to Bhagavadgîtâ* by K. T. Telang.

Paul Deussen in one of his articles said some years back that "Vedanta has proved the curse of material progress in India."

Foreign invaders of which we have historical records, say, from the time of Alexander, have always had an easy time of it. The Hindus have never been able to present a bold united front. As Seeley has pointed out, there is no miracle in a handful of Europeans establishing their sway over this vast peninsula. Centuries before their advent the Moslem Sultans on the *masnad* of Delhi had planted their banners from Kabul to Chittagong and Delhi to Bijapur and Golconda in the Deccan. In fact, the map of India in 1526 when Babar ascended the throne shows the Moslem sovereignty over a larger area than even British India.

"Render unto Cæsar the things that are Cæsar's" has been also the Hindu's attitude. He has always been unconcerned

as to who rules over him. There is absolutely no record of foreign conquest in Sanskrit literature ; only from indirect and far-fetched evidences, we have to glean that the *Yavanas* (*i.e.* the Greeks) ever besieged an Indian province.* Matthew Arnold has fully entered into the spirit of the Hindu's absolute nonchalance in the following stanza :

"The East bow'd low before the blast,
In patient deep disdain ;
She let the legions thunder past,
And plunged in thought again."

The Greek philosophers who accompanied Alexander express their admiration at the other-worldliness of the Indian sages—the gymnosophists. Nay 'Philip's warlike son' himself marvels at their supreme indifference to affairs mundane.

"We have amongst us a sage called Dandamis, whose home is the woods, where he lies on a pallet of leaves, and where he has nigh at hand the fountain of peace, whereof he drinks, sucking, as it were, the pure breast of a mother.

"King Alexander, accordingly, when he heard of all this, was desirous of learning the doctrines of the sect, and so he sent for this Dandamis, as being their teacher and president.

"The son of the mighty god Zeus, King Alexander, who is the sovereign lord of all men, asks you to go to him, and if you comply, he will reward you with great and splendid gifts, but if you refuse will cut off your head."

"Dandamis, with a complacent smile, heard him to the end, but did not so much as lift up his head from his couch of leaves, and while still retaining his recumbent attitude returned this scornful answer : 'Know this, however, that what Alexander offers me, and the gifts he promises, are all things to me utterly useless ; but the things which I prize, and find

* *e.g.* In the Mahabhasya of Patanjali (a commentary on Panini) occurs the significant line :

अरुणत् यवनः साकेतम् ।

Yavana refers to the Greeks. *Cf. Yavanas in Early Indian Inscription by* O. Stein, in *Indian Culture*, Jan., 1935.

of real use and worth, are these leaves which are my house, these blooming plants which supply me with dainty food, and the water which is my drink, while all other possessions and things, which are amassed with anxious care, are wont to prove ruinous to those who amass them, and cause only sorrow and vexation, with which every poor mortal is fully fraught. Should Alexander cut off my head, he cannot also destroy my soul. Let Alexander, then, terrify with these threats those who wish for gold and for wealth, and who dread death, for against us these weapons are both alike powerless, since the Bragmanes neither love gold nor fear death. Go, then, and tell Alexander this: Dandamis has no need of aught that is yours, and, therefore, will not go to you, but if you want anything from Dandamis come you to him.'

"Alexander, on receiving from Onesikratês a report of the interview, felt a stronger desire than ever to see Dandamis, who, though old and naked, was the only antagonist in whom he, the conqueror of many nations, had found more than his match."—*Ancient India as described by Megasthenês and Arrian* —McCrindle's Translation.

It is only under the British regime that the germs of national consciousness has been slowly and silently growing. Burke's impeachment of Warren Hastings and the classical speech on Conciliation with America with its glowing passages full of political wisdom naturally impress the Indian youth.[9] The great civil war with its slogan "No Taxation without Representation" and which culminated in the decapitation of King Charles, made short work of the Right Divine of earthly Sovereigns. The French Revolution which followed a century and a quarter later is only a revised edition of the English exemplar as Buckle has pointed out. The declaration of the Rights of Man substituted Reason for Tradition as the

[9] *Cf.* "I do not know the method of drawing up an indictment against a whole people."
"A great Empire and little minds go ill together."

guiding principle of Man. In short English literature with its liberalising and humanising influence has had its repercussion on Indian life and mentality.

But why express surprise at the complete absence of ideas of nationality in India? It is a matter of recent growth even in Europe, heralded by the French Revolution. Says Gooch:

"The eighteenth century was the age of cosmopolitanism, and nowhere was the soil more favourable to its growth than in Germany. Almost without exception her leading minds owned allegiance to humanity alone. In a land cut up into innumerable petty states, mostly ill-governed, particularism was the instinct of the masses, cosmopolitanism the creed of the *élite*. Excluded from power and responsibility, men of liberal views felt themselves in closer association with reformers and thinkers in other lands than with their own countrymen. To such minds patriotism meant stagnation, a mulish antagonism to the stimulating challenge of foreign influences. 'German nationalism,' declared Nicolai bluntly, 'is a political monstrosity.' 'To be praised as a zealous patriot', wrote Lessing, 'is the last thing I desire—a patriot, that is, who would teach me to forget that I must be a citizen of the world.' The attitude of the leaders of the Aufklärung was shared by the men who ushered in a new period in the intellectual life of Germany. 'If we find a place where we can rest with our belongings,' wrote the youthful Goethe, 'a field to support us, a house to shelter us, have we not a Fatherland? Ubi bene, ibi patria.' 'I write as a citizen of the world who serves no prince,' echoed the youthful Schiller. 'I lost my Fatherland to exchange it for the great world. What is the greatest of nations but a fragment?'

* * * * *

"But it was not till the disastrous campaign which opened at Jena and closed at Tilsit that the rotten foundations of the Prussian state were exposed to the gaze of all the world, and even the King realised that he must break with the past."[10]

[10] *Cf.* "The ripples of Baylen had reached even the minds of Austrian politicians and they had no further to go, and the Austrian common

Even after Jena and Tilsit there was an interview of Napoleon and Goethe at Erfurt (1808). There was also the aged Wieland. But evidently these two intellectuals had yet failed to catch the dawning spirit of the people.

"The Kings of Bavaria, Würtemberg, and Westphalia were present with their consorts and attendant courtiers; so, too, were the Prince Primate and the minor rulers of Germany. More memorable still was the appearance on the scene of Germany's most transcendent genius, who came to lay the homage of his intellect at the feet of him whom he considered at the moment, and long after, not only to be the greatest power, but the greatest idealist in the world"—Sloane: *Napoleon Bonaparte*, Vol. III., pp. 171-72.

That there was no realisation of nationalism is evident from the fact that mercenaries could be had on hire. The *condottieri* of Italy and Switzerland sold themselves for lucre.

"One cause above all has raised France to this pinnacle of greatness," wrote Gneisenau. "The Revolution awakened all her powers and gave to every individual a suitable field for his activity. What infinite aptitudes slumber in the bosom of a nation! Why do not the courts take steps to open up a career to it wherever it is found, to encourage talents and virtues, whatever the rank? The Revolution has set the whole strength of a nation in motion, and by the equalisation of classes converted the living strength of men and the dead strength of resources into a productive capital, and thereby upset the old relations of states and the old equilibrium. If other states desire to restore their equilibrium, they must employ the same instruments."

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soldiers were beginning to use strange new words such as Fatherland, and Patriotism, and Freedom."—A. G. Macdonell: *Napoleon and his Marshals*, p. 185.

"The army, 600,000 strong, of Frenchmen, Swiss, Austrians, Prussians, Poles, Illyrians, Rhinelanders, North-Italians, Neapolitans, Saxons, Bavarians, Westphalians, Portuguese, and Spaniards, crossed the Niemen on the 24th of June (1812)."—Macdonell, *ibid.* p. 242.

Cf. "England now descended far below the level even of those petty German princes who, about the same time sold us troops to fight the Americans the Hussar-mongers of Hesse and Anspach."—Macaulay: *Essay on Warren Hastings.*

It took the European peoples the whole of the nineteenth century for the emergence of the Sovereign National States of Germany, Italy and of the Balkans, and it is only after the devastating war of 1914-18 that Poland and other States have sprung into existence with full consciousness of nationality. Tiny little states like Lithuania, Esthonia, Albania, Latvia had had their self-realisation. Metternich's sneer: "Italy is only a geographical expression" was falsified even during his life-time and when the storm burst forth in 1848, he had to flee in disguise.

India was also a mere geographical expression—though the bonds of culture and religion between the various provinces were strong and indissoluble. Valmiki and Kalidas, Sankara and Ramanuja, receive as much homage from a Bengali as from a Madrasi.

In Bengal at any rate, the Hindu and Moslem are ethnically and linguistically absolutely identical as has been shewn elsewhere. Moreover, throughout India, Islamic culture embracing music, architecture, and the beauties of Persian literature represented by Firdousi, Hafiz and Sadi, makes an impressive appeal to Hindu minds. And even Nanak, Kabir, and Chaitanya have been swayed by the ideal of Brotherhood of Man which is the basis of Islamic religion. The adaptable Hindu mind has always paid homage to Moslem *Pirs* (saints). In fact the cult of *Satyanarain,* also called *Satyapir* with its Sanskrit verses is still a powerful force in an orthodox Hindu home.

COMMUNALISM

CHAPTER XIV.

COMMUNALISM IN THE 20TH CENTURY DUE TO SINISTER INFLUENCES OF BRITISH IMPERIALISTS FOSTERED IN THE MISTAKEN NOTION THAT IT WILL PERPETUATE BRITISH RULE.

"India is our prize possession. We have to live on it. Our own resources can keep us living for only six months of the year, and it is the task of you, the younger and rising generation, to hold India to the last drop of your blood."—LORD BIRKENHEAD: Address to Oxford Students.

"We did not conquer India for the benefit of the Indians. I know it is said in missionary meetings that we conquered India to raise the level of Indians. That is cant. We conquered India as the outlet for the goods of Great Britain. We conquered India by the sword and by the sword we should hold it. I am not such a hypocrite as to say we hold India for the Indians. We hold it as the finest outlet for British goods in general and for the Lancashire cotton goods in particular."—LORD BRENTFORD.

Divide et impera was the motto of Roman imperialism. History repeats itself. The British imperialists, afraid of the slow but silent progress of the peoples of India towards nationalism, wanted to nip it in the bud and devised sundry subtle methods for the purpose. The Hindus due to their own initiative had made rapid strides in western education and in assimilating western ideas. They had naturally secured a predominant position in the political world and had captured the high posts in the administration. Nothing was easier than to foment and work upon the jealousy of the backward section. If the British rulers really wanted the good of India they would have done everything in their power to encourage and spread education among the backward classes and so to raise them to the same level with the Hindus; but they knew full well that education, national consciousness and mass awaken-

ing go hand in hand. Policy therefore dictated that no efforts should be made to lift the non-progressive elements out of the quagmire of ignorance and illiteracy in which they are wallowing. In fact, as ignorance and illiteracy are the best media and breeding ground for the growth of jealousy and fanaticism, these should be perpetuated and exploited to the full. Of course a handful of highminded Englishmen, true to the noble instincts of the great nation, have now and then uttered a note of protest and warning but their voices have been drowned in the midst of the clamour and hue and cry of the imperialists. "Honest" John Morley as Secretary of State for India, nurtured in the traditions of liberalism, tried to restrain the hands of Lord Minto. But the cry of "the Empire in danger" was too much for him and he had to abdicate and give a *carte blanche* to the "man on the spot."

I—Divide and Rule!

In Volume I (p. 138) I have given an outline of the anticipatory measures of the evangel of Imperialism—Lord Curzon—to spite and keep down the Hindus. Let two eminent authorities speak on the subject and bear their independent testimony:

"There was never any cause for quarrel between Hindoos and Mohammedans as such. As simple cultivators they live side by side, and speak the same language. For the first time in history a religious feud was established between them by the partition of the province. For the first time the principle was enunciated in official circles: Divide and Rule! The hope was held out that the Partition would invest the Mohammedans with 'a unity they had not enjoyed since the days of the old Mussulman Viceroys and Kings' ".—Sir Henry Cotton: *Home and Indian Memories*, p. 317.

"Sinister influences have been and are at work on the part of the Government; that Mohammedan leaders have been and are inspired by certain British officials and that these officials have pulled and continue to pull, wires at Simla and in London, and malice aforethought sow discord between the Mohammedan and the Hindu communities by showing to the Mohammedans special favours."—Ramsay MacDonald: *The Awakening of India* (1911), p. 283.

"Division by creeds and classes means the creation of political camps organized against each other, and teaches men to think as partisans and not as citizens; and it is difficult to see how the change from this system to national representation is ever to occur."—Montagu-Chelmsford Report.

The following extracts from a very able article in the *Modern Review* (June, 1933) by Ramesh Chandra Banerjee, will throw further light on the subject:

"It is said that the spectators see more of the game than the players. I will therefore present the reader with an excerpt from an article written by a foreign observer, on the history of the genesis and development of the Government's communal policy as worked out up to the announcement of the communal award recently made by the British Premier; and, it is hoped, the length of the excerpt will repay perusal:

'The history of the matter runs back to 1906. In that year a small deputation led by the Aga Khan, asked Lord Minto, the British Viceroy of India at that time for communal representation for Moslems. From the *Recollections of Lord Morley*, who was then Secretary of State for India, we learn that Lord Minto himself had first suggested this idea to the Moslems, though Morley advised against it.[1] The British Government agreed to the idea and established it by law in the reforms of 1909. The Sikhs were then also granted communal representation. From that time on, the separatist spirit among the Moslems increased.'

"At the Second Indian Round Table Conference it was proposed that the communal representation should be applied to other communities such as Indian Christians, Anglo-Indians and the Untouchables. Mahatma Gandhi strenuously objected to any such extensions specially with regard to untouchables.

"The report of the Commission on the Constitution of Ceylon headed by Lord Donoughmore, in 1928, agreed with Mr. Gandhi. It said the communal representation is, as it were, a canker in the body politic, eating deeper and deeper into the vital energies of the people, breeding self-interest, suspicion and animosity, poisoning the new growth of

[1] The passage referred to by Mr. Gregg is perhaps this:—"I won't follow you again into our Mahomedan dispute. Only I respectfully remind you once more that it was your early speech that started the M. hare. I am convinced my decision was the best."—Vol. II, p. 325. Referring to the communal problem Lord Morley further observed: "If it could be said that this chapter of reforms led directly or indirectly to the establishment of a parliamentary system in India, I for one, would have nothing to do with it."

political consciousness and effectively preventing the development of a national or corporate spirit.

"The Commission also pointed out that once established 'the desire for communal representation tends to grow rather than to die down.' This has been the case among the Moslems and Sikhs in India.

"In regard to separate electorates for the depressed classes, the Simon Report (vol. ii. p. 65) said: 'We are averse from stereotyping the differences between the depressed classes and the remainder of the Hindus by such a step which we consider would introduce a new and serious bar to ultimate political amalgamation with others. If separate electorates have to be maintained for certain classes which have already secured them, there is no reason for bringing other cases within the mode of this treatment, if it can be avoided. A separate electorate for depressed classes means . . . . stigmatizing each individual voter in the list and militates against the process . . . . of helping those who are depressed to rise in the social and economic scale.'

* * * * *

"Thus have our British rulers, who are champions of democracy in their own country, tried and almost succeeded in creating a permanent wall between caste and caste, obviously with a view to prevent the growth of the spirit of solidarity among Hindus.

"That famous Englishman, Bertrand Russell, speaks of it, in the *Manchester Guardian* thus:

'The Indian Government's present attitude only confirms the view that I have expressed—that it is impeding social reform. It is meeting the demand for reform with delaying tactics and spurious arguments.' "

The above is however one part of the story. Mr. Ramsay MacDonald's *volte face* is one of the most remarkable incidents in the English political history of modern times. They say that from the sublime to the ludicrous is but one step. It would form a chapter in psychology if one were to study the career of Mr. Ramsay MacDonald, author of *The Awakening of India* (1911) and his career as the Premier under what is called the 'National Government." It is an illustration of Philip Sober *vs.* Philip Drunk. Mr. MacDonald has now turned a rank imperialist and as such does not hesitate to go back upon his past preachings and stoop to low means and ignoble tactics. The enlightened Hindus inspite of the disabilities of a subject race have been slowly forging ahead and hence political saga-

city demands that they should be kept down and their progress arrested.

At the Second Round Table Conference, a prearranged plan had been made to exclude the representation of Nationalist Moslems so that the Moslem group might act as a team to obtain communal electorate; other anti-national devices were also staged. In vain did Mahatma Gandhi plead for the presence of Dr. Ansari (an ex-President of the National Congress). But Dr. Ansari's great crime was that though a Moslem he is a staunch Congressman as well. Hence every care was taken to select as representatives of the great Moslem community the most rabid anti-nationalists. The Congress has always stood as a non-sectarian and non-communal organization. It has never spoken for this community or that, but for the nation as a whole. Not satisfied with packing the Conference with the reactionary group of Moslems they also took particular care to nominate among the Hindus also certain representatives of the so-called depressed classes, who were quite on a par with their Moslem confreres in their anti-national outlook. This is not the place to discuss the nefarious tactics against which Mahatma Gandhi resolutely set his face. But the astounding upshot was that the Premier constituted himself as the arbitrator for India, since the Hindus could not agree among themselves or come to amicable terms with the Moslems.

Mr. MacDonald in due course gave his "award" in which not only the Moslems, but also the Sikhs, the Christians, the so-called depressed classes had their respective electorates, thus perpetuating class-feuds.

About a couple of years ago, the leading daily paper of the United Provinces urgently invited my opinion on the "award". I at once wired to the following effect: "Most retrograde: setting class against class—a serious stumbling block in the path of nationalism." The only hopeful thing is that many able Moslem leaders and almost the entire younger generation of Moslems are dead against communalism.

As if to give the lie direct to the methods of Mr. MacDonald and his colleagues in the Cabinet, notably the Secretary of State for India, Sir Samuel Hoare, the most fervid and uncompromising opponent of communalism is a Moslem, Dr. Mahomed Alam, who has gone to jail as a civil-resister and has ruined his health and career and courted poverty, has made himself the apostle of anti-communalism. Immediately he came out of the stone-walls and iron bars, he began to preach his doctrine and started a Urdu journal at Lahore, *The Tiryaq*, [antidote to (communal) poison] to undo the mischief. Says Dr. Alam:

"Communalism and nationalism are contradictory terms. Nationalism is anti-communalism and the essence of the latter was that civic rights were protected not by mutual understandings of a temporary nature but by a common bond of interest irrespective of religion."

Another patriotic Moslem writes:

"In the wide range of world's history, perhaps India is the only exception, where things circumstantial are magnified and things essential are minimised and sidetracked. Otherwise how could it be possible that such paltry things as the distribution of seats and services between different communities would crop up at every moment and mar all prospects of constitutional advancement? . . . . We hear from octogenarian fathers that thirty years ago there was no such thing as the communal problem. . . . . The relation between the Hindus and Moslems was always as cordial and natural as does exist between two sons of the same parents."—Rezaul Karim: *A. B. Patrika*, April 22, 1933.

II—Separate Electorate.

A year later, this thoughtful writer thus exposes the hollowness of the White Paper scheme, which by perpetuating separate electorate also seeks to perpetuate our bondage:

"We distinctly remember how in our school-going days we were inspired and invigorated by the fire-breathing speeches of Mr. Jinnah. In those days the political ideals of the Muslim League were almost identical with those of the Congress so much so that many people began to look upon the Congress and the League as the two sides of the same coin.

"We need not relate here the shameful story of how the Muslim League gradually deviated from its ideals of independence and how, instead of becoming an organisation for the advancement of Indian

political units, it became a clique of reactionary parties bent on stemming the tide of rising nationalism in India. While the Congress began to march forward and forward from the ideal of Home Rule to that of Swaraj, the movement of the Muslim League, like the ghost of the Indian folk-tales was backward. Its ideals, therefore, receded backward and backward till it unknowingly fell into the abyss and quagmire of European diplomacy. And its veteran leaders finding no other means of escape made common cause with the school of Churchills.

"We may say that the White Paper scheme is the natural sequel of the faithless behaviour of the followers of Mr. Jinnah who were so enamoured of some unsubstantial seats that to get them recorded in the Statute Book they did not hesitate to betray the cause of India at the eleventh hour and to make common cause with enemies of Indian nationalism to crush the legitimate aspiration and adult ambition of young India.

"Mr. Jinnah and his followers could not take the nationalist Muslims into their confidence by abandoning one point in the fourteen but the whole world knows how they have yielded to the enemies of India and Islam by surrendering the eternal jewels of their soul and took exultantly whatever was doled out to them. Such is the fate of all unprincipled men in the world. Let them enjoy the fruit of their follies. It is their fanaticism, their half-hearted policy that is mainly responsible for the White Paper scheme. It is too late to think of making any improvement upon it.

"We do not know whether Mr. Jinnah had still realised the folly and mistake of his policy or whether he has been able to recover himself from the fatal hallucination which has possessed him so long. But this we must tell him clearly that if he is sincere in his motive, if he sincerely loves his country and community and if he sincerely desires the liberation of his country he must have to change his policy and ideals which had done untold mischief to the country in the past and are keeping away the Muslims from the inspiring touch of advanced political ideas."—*The Amrita Bazar Patrika*, April 11, 1934.

The "Muslim Contributor" of the *A. B. Patrika* writes:

"The 'popular house' would be a conglomeration of separate electorates, Hindu, Muslim, European, Depressed and other sectional electorates. What earthly chance is there of an organized party to put up an effective opposition to the Governments of the future? The nationalist Muslims have always contended for joint electorates. But they never got a chance to put up their case before the various Round Table Conferences and the Joint Select Committee. Everything was stage-managed and the communalists were depicted as the real representatives of Muslim India. The cause of the nationalist Muslims of

India is on a par with that of the Anti-Separationists of Burma. A plebiscite amongst the Muslims of India would show their strength. But what good is a plebiscite? The Anti-Separationists of Burma won the elections on that particular issue by an overwhelming majority. But even that has not proved convincing. It reminds one of the Indian adage 'If you make up your mind not to be convinced, no one can convince you.' Sir Samuel Hoare has made up his mind not to be convinced."

Real Representation.

A young Moslem champions the cause of the Bengal ryots, thus:

"Now, whatever might be the religious differences between the Hindu and Muslim agriculturists, it goes without saying that their economic interests are the same and so are the interests of the zemindars, both Hindu and Muslim. Whenever the interests of the ryots and the zemindars will come in conflict, and they are ever in conflict, the zemindars as a class will fight against the ryots as a class, Hindus or Muslims. The Bengal Tenancy (Amendment) Act stands as a living testimony to this and the proposed second chamber furnishes another good example. Hence we find that there is no way left for the Muslim agriculturists but to join hands with the Hindu agriculturists.

"Leaving religious questions aside which I consider to have nothing to do with economic and political issues, I would like to point out that a Hindu proletariate is as good as any Muslim and a Muslim bourgeoisie is worse than any Hindu proletariate. It is immaterial for me, an agriculturist, whether Muslims secure 30 per cent. or more seats in the legislature, but I am interested to see how many real representatives of the ryots are returned in the Council. Even if I find that 90 p.c. of the seats in the Bengal Council are captured by the Hindus who really represent the ryots of Bengal I shall not grudge the situation but it will pain me to see the zemindars occupying the majority of seats even if they be Muslims. And I know it fully well that in a regime of separate electorate it is not the Muslims who will be in a majority but the zemindars. In this connection I would like to remind my Muslim brethren that the Legislative Council is not a place where religious questions are discussed but it is a house which decides questions affecting economic interests. Would we still advocate representation on communal basis? I hope that I shall not be misunderstood by my co-religionists.

"These are only a few of the problems which the Muslims have to face. I would request every friend of mine to think over them and I am sure that if he possesses even a little sympathy with the 90 p.c. of the

Muslims of Bengal, he will be one with me."—*The Advance*, Nov. 3, 1933.

A young Moslem, who is only an undergraduate, writes:

"We were extremely hopeful when we heard from H. H. The Aga Khan that communalism is nothing short of an anachronism in a democratic country. We thought that after living for a long time in the free and democratic atmosphere of Europe, his outlook had been broadened and he had realised this stern reality.

"The dramatic change of H. H.'s recent attitude does not surprise us because whatever the Aga Khan's Highness may be, neither he nor his Delhi followers think for the interest of the community of which they talk now and then, but what they think of is only how to grind their personal axes at the expense of the community . . . . But may we ask the Muslim community how long they will allow themselves to be exploited by these so-called leaders? Would they realise that their interest lies in the growth and development of virile national consciousness and not in rank communalism?"—Abdoos Satter: *The Advance*, March 1, 1934.

There are always at the beck and call of the imperialists men to do the dirty job. The following account of the Aga Khan from the pen of an English writer will prove arresting (*Grey Wolf* by Armstrong, pp. 246-7).

"Mustafa Kemal saw the danger. In the hostile city of Constantinople, where the population hated him, round the Caliph, and led by his most capable opponents, was forming a monarchical and religious movement against him.

"The people looked up to the Caliph as their religious head.

"As he [M. Kemal] waited wondering how to act, once more Chance came to help him, once more England supplied him with a weapon. The Agha Khan and the aged and revered Amir Ali, two Indian Moslems, decided to write a letter of protest on behalf of the Moslems of India, demanding that the dignity of Caliph be respected. This letter was sent to the Constantinople press and published before it reached the Government in Angora.

"It was Mustafa Kemal's opportunity. He unearthed the history of the Agha Khan; he was a Moslem of some importance in India, the leader of the heretical sect of the Ishmaeli; he lived in England, kept English racehorses, wore English clothes,

and hobnobbed with English politicians and ambassadors; during the world war the English had increased his prestige by careful propaganda, until he was looked on as the head of the Indian Moslems; they had used him as a counterpoise to the Sultan and Turkish propaganda in the East.

"'He is,' said Mustafa Kemal, 'a special agent of the English.' To work up the agitation was easy. England, the crafty, subtle enemy who had failed to destroy Turkey with the Greeks, was at her intrigues again, using the Indian Moslems and the Agha Khan to back Caliph and split the Turks into two camps."

The following extract from the Presidential address by Mr. Abdul Karim, late Inspector of Schools, delivered on the 26th November, 1933, at the Bengal Presidency Muslim League Annual Session, will also conclusively prove that thoughtful Moslem leaders have not hesitated to speak out:

"It is extremely to be regretted that at this critical juncture in the history of modern India, when the need for unity and solidarity cannot be over-stressed, there should be so much bickering among some of the prominent members of this unfortunate community. While other communities have been actively organising themselves and vigorously mobilising all their forces for the fight ahead, Muslim energy and resources are being frittered away in unseemly wranglings for leadership, by setting up organisations of doubtful utility. Need I say this is tantamount to committing political suicide?

"The first item in any programme of economic and political reconstruction of India must, therefore, be the unity among the communities inhabiting it. Failure to create inter-communal harmony and good-will means the perpetuation of her bondage by stultifying all schemes of reform and progress. In fact inter-communal warfare at this critical juncture is another name for national suicide. Nothing is more essential for the political and economic regeneration of the country than the solidarity of its people.

"I disagree with those who hold that in Bengal, for the present the only course is to run the administration on communal lines, and there can be no alternative to a communal government. In the existing circumstances, such a government, I am afraid, will break down sooner or later, and after much suffering, when good sense will prevail a non-communal government will have to be established. By this I do not mean to indicate that either community has not the capacity to carry on

the administration efficiently. Hindus have ruled over Muslims and Muslims have ruled over Hindus without any extraordinary perturbation, not to speak of the ruled being 'crushed out of existence'. Even now the Prime Minister of the largest Muslim State in India, Raja Kishan Parshad, is a Hindu, and Sir Mirza Ismail is the Dewan of the largest Hindu State. They are quite efficiently administering their respective States. Just now another eminent Muslim, Sir Muhammad Habibullah, has been appointed Dewan of the important state of Travancore. But circumstanced as Bengal is at present, only a government in which different communities will have their legitimate share, is likely to be successful.

"It may be pertinently asked in this connection who form the great communities in Bengal—the microscopic classes or the overwhelmingly large masses? The answer to this query, I have no doubt, will be 'the masses'. If this answer is correct, then the inevitable conclusion is that it is the interests of the masses, and not those of the classes, that constitute the interests of the country and the communities.

"Who are responsible for the unseemly communal squabbles? Certainly not the uneducated illiterate masses. My official duties carried me to many of the villages in Bengal, Bihar and Orissa, where I found Hindus and Muslims, whose economic and other interests are, in most cases, identical, living most peacefully on the best of terms, never quarrelling for any doubtful right or imaginary grievance. It matters little to them if one community gets a seat more or a seat less in the council or a post more or a post less in service. *My belief is that it is people who call themselves educated that have set the communal squabble agoing, in many instances for their own ends.* (The italics are mine).

"I should not omit to sound a note of warning to the self-appointed and Government-made leaders of the community, and to others concerned, that young Muslim Bengal, now wide awake to their true interests, are not likely to allow the bartering away of their birth-right without a challenge."

The future historian will record with shame and indignation that while the educated and cultured Indians—Hindus and Moslems—were trying their level best to bring harmony among the two communities, it was reserved for the Prime Minister of England to sow the dragon's teeth and thus perpetuate the chasm not only between the different castes and sects of the Hindus but also between the two great divisions of the people. The drowning man catches at the last straw. Accord-

ing to the school of politicians of whom Mr. MacDonald has made himself the spokesman, the one thing needful for preventing the Indian Empire slipping out of the hands of England is to set class against class and hold a premium on communalism. It never occurs to them that the better method would be to make the Indians feel that they are really British citizens by granting them genuine Dominion Status, which Mr. MacDonald himself suggested would have to be done just after he formed the first Labour Ministry.[1] Politicians have however short and convenient memories. They throw away their life-long cherished principles with as little concern as one would cast off a pair of old shoes or a worn out garment.

Mr. MacDonald on behalf of the reactionaries has not only tried to widen the breach between the Hindus and Moslems, but he has also developed a sudden solicitude for the depressed classes and has adopted as his slogan: "Remember Codlin is the friend and not Short.' By offering the bait of a few more seats in the Council Chamber through separate electorate he seeks to perpetuate in India a class of social lepers. That this is only a logical development of the policy systematically pursued by British Imperialists will be clear from the following extracts from the Punjab Census Report of Mr. Middleton (1921):

"Government's passion for labels and pigeon-holes had led to a crystallization of the caste system which, except among the aristocratic castes, was really very fluid under indigenous rule. If the Government would ignore caste, it would gradually be replaced by something very different among the lower castes.

* * * * * *

"The activities of the British Government have gone very little towards the solution of the problem of caste. Most of these activities, as must be evident, were dictated by prudence of administration and not by a desire to reduce the rigidity of caste whose disadvantages were so patent to them.

[1] The present Prime Minister on July 2, 1928, used these words:
"I hope that within a period of months rather than years there will be a new Dominion added to the Commonwealth of our nations, a Dominion of another race, a Dominion that will find self-respect as an equal within this Commonwealth; I refer to India."

"On the whole the British rulers of India, who have throughout professed to be the trustees of the welfare of the country, never seem to have given much thought to the problem of caste, in so far as it affects the nationhood of India. Nor have they shown willingness to take a bold step rendering caste innocuous. Their measures generally have been promulgated piecemeal and with due regard to the safety of the British domination."

The lesson of the Mutiny, *viz.*, that the safety of the British domination in India was very closely connected with keeping the Indian people divided on the lines of castes, was driven home to the British rulers. Some officials like Sir Lepel Griffin thought that caste was useful in preventing rebellion, while James Ker, Principal of the Hindu College, Calcutta, wrote the following in 1865 :

"It may be doubted if the existence of caste is on the whole unfavourable to the permanence of our rule. It may even be considered favourable to it, provided we act with prudence and forbearance. Its spirit is opposed to national union."

III—Separate Electorate for Depressed Classes.

But the climax seems to have been reached in the separate electorate for the depressed classes provided in the proposed constitution.

Since the days of Rammohun Roy social reform movement has been a prominent feature in the programme of the Brahmo Samaj, the Arya Samaj, the Ramkrishna Mission inaugurated by Vivekananda and other bodies. The advanced section of the Hindus has thus been prominent in activities in this direction. When Mahatma Gandhi in 1921 started the new political programme, he assigned to the removal of untouchability the foremost importance. In connection with the sittings of the National Congress, a social conference has almost invariably been held, having for its object the levelling down of caste rigidities, female education, spread of primary education and the like. In 1917 I was elected President of the Conference. I chose for my address the *Problem of the Depressed Classes* from which one or two excerpts are quoted below :

"Is it fair, is it just, is it in the best interests of our country that a handful of privileged men should continue to monopolise all the

advantages accruing to them through the accident of birth and drive the submerged teeming millions to hostile camps and compel them to live in a state of armed neutrality? A house divided against itself cannot stand. The backward classes are flesh of our flesh and bone of our bone and it is the bounden duty of our men of light and leading to extend to them the right hand of fellowship and lift them up from the quagmire of degradation and despondency. . . . . The loss to the country from the intellectual stagnation of the overwhelming majority of her people is simply incalculable.

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"Within the last three centuries, and from time to time there have arisen also in our midst saints and prophets like Guru Nanak and Kabir and Chaitanya to preach the Doctrine of Brotherhood of Man, and had it not been for their teachings a far larger proportion of the people of North India would have embraced Islam."

It now suits the convenience of Mr. MacDonald to pose as a champion of the caste-system, though the Hindus themselves are astir to set their house in order.

A few years ago the late Lajpat Rai proposed in the Assembly that a sum of one crore of rupees be set apart annually expressly for the education of the "depressed" classes. Our *paternal* government however poured cold water over the scheme, thus evincing its solicitude for the masses.

It is very unfortunate that the communal award should have come to us as an apple of discord and have diverted the attention of many who are engaged in the difficult and uphill task of nation-building to trivial things. Mahatma Gandhi, however, with the sagacity of a true leader, has concentrated his super-human abilities to the unification of Hindu India. The Harijan Movement has stirred the depths of Hindu society, and bids fair to bring about a revolution in the Indian body politic. The doctrine of equality and dignity of man as man preached by the saints of India in the middle ages, have, under the inspiration of the Mahatma, acquired a new political significance, and is rapidly developing a consciousness among the masses of India which no power in the world can any longer suppress.

The eminent leader of the Moslem community in Madras, Mr. Yakub Hasan in a recent address entitled "Nationalism:

The Super-religion of India" puts forth admirable sentiments and I can do no better than conclude this chapter with a few extracts from his address.

"The reason why nationalism has worked such wonders in the transformation of Turkey is that the Turks elevated it to a position in their heart that was in olden days generally given by oriental peoples to religion. With Turks nationalism became as great a motive power as religion has been with some people in the past.

"I am not prepared to give up my religion and I do not ask you to give up yours. All that I ask you to do is to regard nationalism as a thing above religion and give it such a position in your heart that no religious sentiment will interfere with it. Religion is after all our personal relationship with God.

"Now that we are confronted with a constitutional crisis which is by no means less grave than the crisis that Turks were faced with in 1923, it is very important that we should as Indian Nationalists stand together and forget that in respect of religion we are Hindus or Muslims, Christians or Parsees, Sikhs or Jains.

"It is, therefore, high time that there should be a purely political party in India which should make it its sole object to create, develop and strengthen the national feeling in the country. It was for such a high purpose that the Nation First Party was brought into existence."

IV—Nationalist Muslims on Separate and Joint Electorates.

While preparing this chapter for the press, I came across in the *Modern Review* (July, 1934) the opinions of some Moslem leaders of all-India reputation declaiming against separate electorate as the very negation of nationalism:

"Though at present Muslims claiming to be Nationalists are praising the Congress Working Committee's non-acceptance and non-rejection of the Communal Decision, of which separate electorates are an essential feature, it was not long ago that their most prominent leaders condemned separate electorates

and praised and asked for joint electorates. Brief extracts from their opinions are reproduced below from the Allahabad Law Journal Press pamphlet on the Communal Decision.

"We shall first give the opinion of the late Sir Ali Imam. Presiding at the All-India Muslim Nationalist Conference at Lucknow on the 18th April 1931, he said:

'To-day's Conference represented Muslim Nationalists, in other words, people who were not wedded to a scheme of separation. They had been simply flooded with messages from every corner of India from different leaders who one and all insisted on the basic principle of joint electorates.'

'Separate electorates connote the negation of nationalism. Political problems are but a reflex of social forces. If you erect an iron wall between community and community in their politics, you destroy the social fabric, and day to day life will become insupportable if you insist on building political barriers. Nationalism can never evolve from division and dissensions.'

"At this Lucknow Conference Dr. Ansari moved the principal resolution the last paragraph of which stated that the Nationalist Muslim Party strongly holds the principle of joint electorates. In moving the resolution Dr. Ansari said, in part:

'This is not the occasion to expatiate on the absolute necessity of joint electorates for the growth of a united nationhood. I am speaking to Mussalmans just now, and I wish to tell the Muslim community through you that, apart from wider national considerations, the insistence on separate electorates would prove suicidal to the continuance of the Mussalmans in this country as a political and cultural force of any significance.'

"Presiding at the All-Bengal Muslim Nationalist Conference at Faridpur on June 27, 1931, Dr. Ansari repeated his previous views.

"The principal resolution passed at this Conference insisted on 'joint electorate with adult suffrage.' In supporting this resolution Mr. T. A. K. Sherwani said:

'The advocates of separation wanted to erect insurmountable barriers between Muslims and other communities. To this the nationalists could never consent. The evil effect of separate electorates was apparent from the fact that the spirit of separatism was penetrating among the Muslims themselves. Votes were being canvassed on the basis of a

candidate being a Mirza or a Pathan, Qureshi or Ansari, Shiah or Sunni.'

"Dr. Ansari, in the course of a speech at the United Provinces Nationalist Conference at Meerut on the 28th July, 1931, stated that joint electorates were the second basic principle of the scheme he stressed.

"Dr. Mahmud in his presidential address at the same Meerut Conference stated:

'The programme of separate representation has killed the spirit of competition. It has arrested the natural and healthy growth of public spirit among the Mussalmans. Common electorates, on the other hand, will draw out the best and the noblest that is in the Muslim society.'

"Malik Barkat Ali, Chairman of the Reception Committee of the Punjab Nationalist Muslim Conference held at Lahore on the 24th October, 1931, said with reference to the question of separate electorates:

'We feel that in the circumstances of to-day and in the India of the future, they should have no place whatever.'

"The Bengal Council devoted the whole of August 2, 1932, to discussing Mr. Abdus Samad's resolution in favour of joint electorates and ultimately adopted by 47 votes to 32 Mr. Tamizuddin Khan's amendment:

'That the Government be pleased to inform the proper authorities concerned that in the opinion of this Council the system of separate electorates in the future constitution of the country should be replaced by a system of joint electorates.'

"Mr. Asaf Ali concluded a long statement issued to the Press on June 14, 1932, from New Delhi thus:

The simplest formula they (the Muslims) should stick to is 'joint electorates, no reservation, no weightage, no special constituencies and adult suffrage, or the lowest qualification for franchise to enable the bulk of the population to get representation, and if any formula for minorities is insisted upon by minorities in different provinces, it should be uniform for all minorities.' Any deviation from it would complicate both present and future issues, and would work to the detriment of both the country and even the Muslim community.

"The principal resolution at a meeting of the Executive Committee of the Bengal Nationalist Muslim party held in August,

1932, under the presidentship of Chaudhury Mozzem Hossain recorded

'Its emphatic protest against the communal award recently given by the Prime Minister in consultation with the British Cabinet on the following among other grounds: It recognizes the principle of separate electorates, which is fundamentally opposed to responsible government.'

"Maulana Abul Kalam Azad said in the course of an interview to the *Free Press* in Calcutta on September 1, 1932:

'The Communal Award of the Prime Minister is the most dangerous thing that could happen to Indian Nationalism. It has set one community against the other, without giving any tangible benefit to any save the Europeans.'

"Dr. M. A. Ansari, President of the Nationalist Moslems, said in a recent interview, published in the *Hindusthan Times* of the 13th March, 1934:

'The communal award is the result of the deliberate choice of a particular kind of Round Table Conference personnel to render a settlement impossible and thus impose an outside solution.'"

V—Death-Knell of Nationalism.

At the recent Congress Nationalist Conference, August, 1934, Mr. Abdus Samad in seconding the resolution against Mr. MacDonald's "award" said that:

"The decision of the Congress Working Committee had sounded the death-knell of nationalism in India, and its effect would deter the possibility of an amicable settlement between the two communities. He opposed the Communal Award because it was anti-national and inconsistent with any responsible form of government.

"Responsible government with separate electorate could not go hand in hand. Muslims had enjoyed the privileges of separate electorates. But what was the sum-total of their gain? Nothing. The tension of having more was daily gaining ground. The only effective and best safeguard for a backward community was not separate electorate but the support and co-operation of the advanced community. *The Communal Award would usher in an era of fratricidal strife in the country. He opposed separate electorates because it would more seriously affect the interests of the Muslim community than those of the Hindu community. The continuance of the separate electorates would merely strengthen the hands of the bureaucracy.*" (Italics are mine).

Mr. Samad's note of warning has found an echo in Mr. Abdus Sattar's and Mr. Rezaul Karim's letters in the *Ananda Bazar Patrika* (Bengal) and in Professor Abdul Majid Bukhsh's in the *Tribune* (Punjab). The writers strongly support a common electorate as the basis of all negotiations.

The Moslem contributor of the *A. B. Patrika* (September 2, 1934) very ably summarises the mischief done by the "award":

"The crux of the whole problem is in having joint electorates. The British Premier, naturally would like to perpetuate the system of separate electorates for all times to come. He would not be human if he did not do so. One of the most harmful results of the system of separate electorates has been the accentuating of one's own religious orthodoxism. When fanaticism and orthodoxism were on the point of decay they were given a fillip by the introduction of the system of separate electorates. What untold harm it has done will only be apparent fifty years from now. It has harmed Hinduism, it has harmed Islam. The growth and development of liberal tendencies amongst all religious faiths, which was a 20th century phenomenon, has been retarded. Humanity has been stunted by means of this vicious system of electorates."

The fact is the interests of the Hindu and the Moslem are identical. If we can win real Swaraj, the top-heavy administration will go down and the crores of rupees which fill the pockets of the bureaucrats will be released for compulsory primary education, sanitation and agricultural improvements. In Bengal, at any rate, Moslems will be thereby more benefited than the Hindus.

VI—'Quo Vadis' Muslims?

I cannot conclude this chapter better than with the racy and patriotic utterance of a thoughtful Muslim, Mr. A. Quaiyum Ansari:

"Perhaps the utter bankruptcy of the present Muslim leadership in India was never so pronounced and self-expressed as it is to-day. It has beyond doubt proved its sheer worthlessness. Its glaring incapability to discharge its onerous responsibility is before all eyes.

"Visionless, selfish to the core, totally blind to the real needs and interests of their distressed community, the Muslim leaders stand pathetically self-exposed and self-condemned. They live not for the

good and gain of the community; they exist simply for the advantage and benefit of their vicious self.

"A complete degeneration has overtaken the Muslim masses in every wake of life. No better testimony can be produced of the singular ineffectiveness of the vile 'means' adopted by our leaders for the uplift of the community. The egregious failure of their insensate 'policy' admits of no doubt. And no prophet is required to tell that if this state of things continues a little longer Muslims are doomed for ever.

"The truth is, our leaders have long been accustomed to play hide-and-seek with the community. They have always sported with the interests of their unwary people; none can prophesy they will not resort again to their familiar game. We know, they cannot part with it; it pays them to take recourse to such mean tactics. It has brought them immense honour and position in the past; they know it has not lost its 'efficacy' to bring them distinction and power even now.

"It comes very easy to suggest and proclaim that as some executive councillors, ministers and even governors of provinces have been drawn from among the Muslims, the community is making much headway! We wish this claim was true. But, as even a fool knows, one swallow does not make a summer. And if a few 'selected' self-seekers are chosen from time to time (for reasons not very well to state) to occupy these 'glided' offices, the hard reality that a lamentably vast number of Muslims remains to this day not only unfamiliar with the alphabets but also devoid of food and cloth cannot, however, be altered to the slightest degree.

"While unfortunate masses smart under the cruel lash of poverty and starvation and die as poor and hungry as they were born, our leaders shamelessly and brazen-facedly enjoy the 'refreshing' pleasure such honours and offices usually carry in their trail. They add ever new feathers to their caps, while the famished and the destitute live their own miserable life!

"And, yet a pernicious figure gleefully points to that magnificent 'achievement' of our leaders boastfully claimed in their detestable coterie as the Magna Charta of Muslims! We all may well feel jubilant and dance in joy now that the portals of Heaven to which only our leaders had access heretofore has now been thrown open to us!

"At the behests of our leaders our time has ever been taken up and our energy ever been caused to be wasted in sheer drudgery of meaningless and often harmful pursuits. Our resources have always been directed towards the stagnant pool of our leaders' personal advantage from where the larger and moving stream of real interest of the community has been entirely cut-off. Who knows we are not being led into the spiders parlour once more!

"The leaders may have secured a Magna Charta or even a Chapter of Heavenly Bliss in the shape of the loudly-acclaimed Communal Award. We do not want to deny them the happiness and contentment of having obtained such a precious 'prize'. Nor is it our desire for a moment to deprive them of the joy of relishing to their hearts' content the 'juicy' fruit of their 'own' untiring labour. We simply like to point out that this much-trumpeted boon does not in any way improve the wretched, unhappy plight of Muslim masses who continue to languish in a practically neglected and uncared and unlooked for state as ever.

"Our leaders have off and on made us believe that the community's interests are bound up with offices, seats and services alone. As if a few more seats in the legislatures and a few more jobs for which Muslims cannot qualify in open competition will bring the promised millennium to the Muslim community!

"However much these leaders may prate and boast of their grand performances and splendid achievements at the Round Table Conferences and in the cabinets, the facts remain as bare, simple facts. No conceivable or inconceivable amount of wordy jugglery on their part can change the horrifying and heart-rending aspect of those remote, isolated villages where Muslim masses dwell in extremely insanitary and unhealthy surroundings, miserably rotting in the darkness of humiliating ignorance and groaning under the agonizing iron-heels of grinding poverty all throughout the three hundred and sixty-five days of a year!

"Our leaders, completely engrossed as they are in self-interest, ignore all realities and, in their purblindness, count the progress of the community in terms merely of seats and services. They have never troubled their minds to give a serious consideration to the vital and life-and-death problem of raising the present degrading status of the Muslim masses. These good persons are simply incapable of visualizing the certainties of the situation and of looking beyond their own self.

"Not one of our leaders has ever thought, or likes to think, of the very momentous question of helping the Muslim masses out of the pitch gloom of illiteracy and ignorance and of devising means of giving these famished, poor creatures of God enough food to appease their excruciating hunger and enough cloth to hide their abasing nakedness.

"This is a very sorry picture of our leaders of to-day; but there it is in its ugly reality. Will the Muslims tolerate them a day longer?

"We exclaim in despair: Save us from such leaders!"—*A. B. Patrika*, Nov. 29, 1934.

I have shown above that some of the cultured Moslems themselves feel bitterly the spread of communalism which in the words of one of them is the "very negation of nationalism";

in fact, I have quoted verbatim from their speeches and writings to establish this point. Pressure on space forbids my giving more citations. It is enough to enumerate here the bare names of a number of Moslems of all-India fame—staunch nationalists —who have thrown in their lot with the Hindus in their struggle for winning *Swaraj* and have cheerfully courted jail. Prominent among these are Dr. Ansari (Congress Ex-President), Dr. Syed Mahmud, Dr. Kitchlew, Rafi Ahmed Kidwai, Syed Abdul Brelvi (Editor, *Bombay Chronicle*), Yakub Hasan (Madras), Abul Kalam Azad (great Arabic Scholar, knowing only a smattering of English). The Bengali Moslem poet Nazrul Islam, whose name is one to conjure with and who has repeatedly courted incarceration on account of his fiery, soul-stirring verses, deserves special mention in this connection. The rising poet Jasimuddin is also an asset to the younger generation. In short, it would be a gross calumny on the awakened national consciousness of our Moslem brethren to assert that they stand aloof in this hour of upheaval.

That noble son of Bengal, who has consistently and persistently maintained his position, once more criticised the observations of his communally minded co-religionists at the Bengal Council (Dec., 1934).

"Maulavi Abdus Samad criticised the observations made by Khan Bahadur Abdul Momin that the proposed constitution was 'a great advance' on the existing condition of things and that in spite of certain drawbacks and shortcomings, 'the Bengal Muslims to a man' had the general approval of the recommendations of the Select Committee. The speaker recalled what other Muslim leaders, more competent to speak on the subject had said about the report. Sir Abdur Rahim, Mr. Jinnah and many other Muslim leaders had condemned the report in unequivocal terms and had expressed their willingness to join hands with the Congress for rejecting it. Quoting the opinion of some of the moderate Muslim leaders and comparing them with the opinion expressed by Khan Bahadur Momin the speaker asked the House to judge for itself how far his claim to speak as the *de facto* and *de jure* leader of the Muslim community was supported by the opinions expressed by other Muslim leaders.

"The next important point in the Khan Bahadur's speech which required consideration was his remark that 'it is good government

and not self-government that we need.' That was exactly the argument used by Mr. Churchill against the introduction of responsible government in India. Mr. Churchill's contention was not accepted by other British politicians who held that good government was not equivalent to self-government. It was a pity that the Khan Bahadur was trying to outchurchill Mr. Churchill. Nothing better is to be expected from an ex-commissioner of a division. In fact he spoke in the voice of the bureaucracy and not in the voice of the Khan Bahadur, the accredited leader of the Muslim community.

"Another point in the Khan Bahadur's speech which the speaker dealt with was his views about the communal award. The Khan Bahadur hailed the award as the *Magna Charta* of the Muslim community, but in the opinion of the speaker it was a death-blow to Muslim interests and Muslim progress. It was on this ground and not on the ground that it affected the interests of the Hindu community that he had consistently raised his voice of protest against the pernicious system of separate electorate. It was a device very ingenuously planned to keep the Muslim community permanently segregated from their politically, educationally and economically more advanced neighbours, the Hindus, with a view to prevent the growth of patriotism and nationalism among the Muslims, ideals which a community must keep before its mind if it ever aspired to attain political freedom.

"The speaker said that it was not yet too late for the Government to revise their policy and to concede to the Muslims of Bengal absolute majority on the basis of joint electorate by reducing the number of seats allotted to the European community, a position which the speaker knew, the Hindus would gladly accept. Unless that was done, the proposed reforms would bring no peace in the land and the constitution would not be worth the paper on which it was written."

Prof. Abdul Majid Khan of Lahore has also, in unmistakable terms, denounced the communal award (Jan., 1935).

VII—Muslim League—"A Gigantic Fraud."

"It was, we believe, at a Students' Union at Aligarh that a resolution was passed by the Moslem students who are the representatives of the rising generation of the Mahomedans that in view of their past indifference to the cause of the country's political freedom the Moslems have no right to live in India. A more bitter condemnation of the anti-national attitude of the vast majority of those who pose as Moslem leaders is hardly conceivable. By passing the resolution which expressed their acutest sense of dissatisfaction at the politics of these people, the youths of Aligarh demonstrated that the future of the country was not

certainly as dark as the policy and practice of the communalist Moslem public men would lead one to believe.

"The short report of the political discussion held at the Arabic College Hall, Delhi, on last Sunday evening which has been just received is another ray in the prevailing darkness. Opening the discussion one Mr. Shanim Ahmed observed that the future of the Mussalmans of India was bound up with that of other sister communities who ought to be regarded by the Mahomedans as the flesh of their flesh and bone of their bones. Another speaker, Mr. Qudrruddin remarked that the Moslems had done very little for the country during the last decade and that what they needed most at the moment was the re-orientation of their thoughts. A third Mahomedan speaker Prof. Zaidi is reported to have expressed the opinion that though the Communal Award was regarded by many elderly Mahomedans as the best thing possible under the sun, 'not one amongst the Moslem youths liked it.' A fourth Mahomedan gentleman who took part in the debate was yet more courageously outspoken in his remarks. He declared that there was not a single representative Moslem organisation of influence and importance which really voiced the real opinions and sentiments of the Mahomedans. In fact, the All-India Muslim Conference was, in his opinion, 'a big hoax' while the Muslim League was 'a gigantic fraud.' "—*A. B. Patrika,* Feb. 21/35.

Strange as it may appear Mr. Jinnah was present at the meeting and had to swallow the compliments paid to the "leaders".

While going through the final proof of this chapter, I read in the daily papers, (Feb. 27, 1935) an account of the admirable address delivered by Madame Halide Edib Adnan to the Calcutta University students, in the course of which she said: "Love of the country came first and therefore India must come first, and not the community. . . . . I ask you to love India above everything else."

CHAPTER XV.

COMMUNALISM PRACTICALLY UNKNOWN BEFORE THE DAWN OF THE TWENTIETH CENTURY—AN HISTORICAL RETROSPECT—RELIGIOUS TOLERATION.

"Religion had no connexion with civil government, but was only the business, or rather amusement, of private life[1].—Maxim of Alauddin Khilji, Sultan of Delhi, 1295—1314 A.D."—ELPHINSTONE.

"Sher Shah's (1542-45) aim was to create a secular spirit in the State and keep religion in the background, which he considered as the private concern of the individual, having nothing to do with public life."—K. QUANUNGO: *Sher Shah*.

"When Nadir Shah appeared on the scene (1739) the Peshwa Baji Rao suspended all plans of aggrandisement:

'Our domestic quarrels (he writes) are now insignificant; there is but one enemy in Hindostan . . . . Hindus and Mussulmans, the whole power of the Deckan, must assemble.' "—GRANT DUFF: *History of the Marhattas*.

Let me now make an excursion into the past history of India, *i.e.* from the 14th century, when the Moslem power was fairly established not only in Northern India but in the Deccan as well, to the dawn of the 20th century. It will be seen that communalism was practically unknown during all those long six centuries. Strange as it may appear it is only of recent manufacture and fomented to subserve political ends. Some passages from Elphinstone's *History of India* (edited by Cowell, 1889) are reproduced here:

"The Hindús were regarded with some contempt, but with no hostility. They were liable to a capitation tax (jizya) and some other invidious distinction, but were not molested in the

[1] This maxim can only be paralleled with that of Lenin, namely, *religion is the opiate of the people*. But Alauddin lived towards the end of the 13th century and Lenin in the beginning of the 20th—an interval of six centuries. Kemal Pasha also holds that "religion was for him the cold, clogging lava that held down below its crust the flaming soul of the nation."—*Grey Wolf* by Armstrong, p. 241.

exercise of their religion. The Hindús who are mentioned as military commanders may perhaps have been zemíndárs, heading their contingents, and not officers appointed by the crown. There is no doubt, however, that many were employed in civil offices, especially of revenue and accounts;.....under Mobarik Khiljí (A.D. 1317—21) the whole spirit of the court and administration was Hindú.

I—Sur Dynasty: A.D. 1542—1554.

"Hindus were allowed to hold positions of some importance in his army. This policy he followed from the very beginning of his career.....One of Sher Shah's best generals was Brahmajit Gaur.....He was sent in pursuit of Humayun after each of the battles of Chaunsa and Bilgram.....We know that as early as the days of Mahmud of Ghazni the Hindus were welcome to the ranks of the Muslim army.

"Sher Shah was the first who attempted to found an Indian Empire broadly based upon the people's will. 'No Government, not even the British, has shown so much wisdom as this Pathan's,' says Keene.

"Mohammed A'dil Shah (A.D. 1553) committed the conduct of his government to one Hémú, a Hindú, who had once kept a small shop, and whose appearance is said to have been meaner than his origin. Yet, with all these external disadvantages, Hémú had abilities and force of mind sufficient to maintain his ascendency amidst a proud and martial nobility, and to prevent the dissolution of the government, weighed down as it was by the follies and inequities of its head."

Even under Emperor Aurangzib (1659—1707), Hindus held very trusted positions in the state. Under Aurangzib's Viceroy in Bengal, Murshid Kuli Khan, the Hindus had a monopoly of all the important administrative posts in the civil department; they also held important military posts. Had the Mogul emperor any innate hatred of the Hindus he would have discouraged, nay, sharply reprimanded his Satrap. Even at Delhi the practical head of the revenue department was a Hindu.

"All the same when Jafar Khan was created Prime Minister, and he continued as such during the War of Succession, the actual administration of the revenue department was conducted by the old and experienced Assistant Diwan, Raghunath Khatri, entitled the Rai-i-raian. On gaining the throne Aurangzib continued this temporary arrangement of the diwani, and raised Raghunath to the peerage as Rajah (15 June, 1658). .....He was a man of sterling integrity, diligent attention to business and signal capacity for administration"—J. N. Sarkar: *Aurangzib,* III, p. 72.

It is generally said that Aurangzib alienated his Hindu subjects by his bigotry and illiberal sentiments. But even under his reign "it does not appear that a single Hindu suffered death, imprisonment, or tax on property for his religion or, indeed, that any individual was ever questioned for the open exercise of the worship of his father."—Elphinstone: *History of India.*

He, however, betrays no disinclination to utilise the services of the Rajput chiefs, Jeswant Rao and latterly Jai Singh, when he has to fight against the resourceful Marhatta leader Sivaji representing the Hindu cause. It is true the Mogul Emperor now and then sends Dilir Khan as a counterpoise, but that is because of his suspicious nature. He was more distrustful of his sons (Princes Moazzim, Akbar and others) than of the Hindu general. The perpetual dread lest his sons might emulate his own example haunted him. It is wellknown that after the death of Aurangzib, the Mogul Empire rapidly broke into pieces, and we find that the Hindus rapidly gained the upper hand in the administration of the country, either as independent chiefs, or as military commanders under Mohammadan Princes.

As an example of Hindu toleration I may allude to the history of the Parsis who are the descendants of the ancient Persians who emigrated to India on the conquest of their country by the Arabs in the 8th century. They first landed at Sanjan on the coast of Gujrat, where the Hindu rulers received them hospitably.

Another amongst the numerous instances of Hindu chivalry is given below.

Aurangzib's son, Muhammad Akbar, rebelled against his father and attempted to seize the Crown with the help of the Rajputs. The attempt signally failed ; but the Rajput leader Durgadas most chivalrously escorted the unhappy prince through every danger to the Court of the Marhatta King Shambhuji. Aurangzib was anxious for the restoration of his grandson and grand-daughter and came to terms with Durgadas. I quote below the graphic account of their restoration.

"Akbar's infant son Buland Akhtar and daughter Safiyat-un-nissa had been left in Marwar with his Rathor allies, as the children were too tender to bear the hardships of his flight from the country in 1681. Durgadas placed them in charge of Girdhar Joshi in an obscure place difficult of access. They were brought up [1681—96] with every care not only for their health and morals, but also for their education in the Islamic religion."—J. N. Sarkar: *Aurangzib*, V. pp. 281-2.

II—Bengal under the Nawabs.

Coming nearer home, we notice a complete absence of communalism in Bengal. The independent Pathan Sultans of Bengal were the great patrons of the Bengali language, and Vidyapati sang the glories of one of them in his immortal verse (see p. 89).

The heading of this chapter is the title of a work by Kali Prasanna Banerji. The writer weighs every word and is a reliable authority. Below is given a synopsis of his mature conclusions. In Bengal the zemindars were more or less like the feudal lords of the middle ages in Europe. The *bára bhunyas* or the twelve semi-independent barons were left severely alone on the payment of a fixed revenue to the Imperial coffer and even this was withheld when the Mogul or the Pathan rule was relaxed at the headquarters. There was no interference in the administration of their internal affairs.

Most of the legal disputes were settled by the awards of arbitrators chosen with the consent of the parties. . . . . Petty cases were submitted to the *punchayets* or village arbitrators whose decisions were final.

Most of these *bára bhunyas* were Hindus, and the reason for this preference can be gathered from the following extracts from *The Life of Robert, Lord Clive*, Ed. 1836, Vol. I. by Major-General Sir John Malcolm.

"But while they [the Mahommedan rulers] succeeded to the power which these [Hindu] potentates had held, the management of the finance and revenue, and all those minuter arrangements of internal policy, on which the good order of the machine of government must ever depend, remained very nearly in the same hands in which the Mahommedans had found them. . . . . A Hindu, under the denomination of minister, or as Naib (or deputy), continued at the head of the exchequer ; and in this office he was connected with the richest bankers and monied Hindus of the country.

"A very quick and intelligent Mahommedan prince, on being asked why he gave so decided a preference to Hindu managers and renters over those of his own religion, replied that 'a Mahomedan was like a sieve,—much of what was poured in went through ; while a Hindu was like a sponge, which retained all, but on pressure gave back, as required, what it had absorbed.'

"But there were other reasons which prompted Mahommedan princes to employ and encourage Hindus, both at their court and in their armies. They formed a counterbalance to the ambition and turbulence of their relatives, and of the chiefs and followers of their own race. This feeling operated from the emperors on the throne of Delhi, when in the very plentitude of their power, down to the lowest chief: and it is from its action combined with that influence which the wealth and qualities of the Hindus obtained, that we are, in a great measure, to account for the easy establishment and long continuance of the Mahommedan power in India. The new dominion was attended with little of change, except to the

Hindu sovereign and his favourites. *The lesser Rajas (or princes) gave their allegiance and paid tribute to a Mahommedan instead of a Hindu superior, while their condition and local power continued nearly the same.*

"Hindu ministers and officers served probably to greater profit the idle and dissipated Moghul, than they could have done a master of their own tribe ; *and as there was complete religious toleration,* and their ancient and revered usages were seldom or never outraged, they were too divided a people upon other subjects to unite in any effort to expel conquerors, who, under the influence of various motives, left to them almost all, except the name, of power" (italics are mine).

During his Viceroyalty, Murshid Kuli Khan employed as his revenue officers and councillors trusty Hindus, and was entirely guided by their advice ; prominent among these were Darpanarayan, Bhupati Roy, Kishore Roy and Jeswant Roy[3] and Raghunandan. Even high military posts were thrown open to the Hindus. Lahory Mull and Dulip Singh, though Hindus, were employed as commandants against recalcitrant defying Hindus. Among zemindars, Ramjivan and his right hand man Dayaram, as also Raghuram held at times important military posts.

During the Nawabship of Ali Verdy, the Hindu Nandalal held the highest military command in the earlier portion of his reign. Raja Janakiram was his most trusty councillor ; his sons Raja Durlavram and Raja Ramnarayan were equally the holders of the highest posts. Chinmoy Roy, Virudatta, Kirtichand, Amrita Roy, Chintamoni Das and Gokul Chand were the leading dignitaries in the revenue departments and later on Raja Rajballav of Dacca from very humble beginning rose to be Naib-Subadar. Rajaram was in a manner his plenipotentiary in negotiations. Dewan Manikchand and Umedram occupied positions of importance. Not only were the Hindus

[3] Jeswant Roy, who had been one of the ministry of Murshid Kuli Khan, was a wise ruler and an eminent financier. He did everything in his power to foster trade (Bradley-Birt, *l.c.*).

held in high esteem in fiscal affairs but often were entrusted with military commands. Durlavram, Manikchand, later on Mohunlal[3] and Syamsundar showed bravery on the battle field.

In fact the real trouble of Nawab Ali Verdy Khan was owing to the defection and perfidy of the *Moslem* lieutenants; they had not the least scruple in throwing off their allegiance to Ali Verdy and making common cause with the Marhattas. Indeed, not a trace of religious bigotry or communalism is discernible throughout. Self-interest alone is the guiding motive.

It will thus be seen that during the Moslem period from the 13th century uptil the battle of Plassey the Hindus of Bengal had never occasion to feel that they were under an alien rule. The highest offices—civil and military—were thrown open to them. It is again a remarkable fact that with the exception of the Raja of Birbhum all the big zemindars were Hindus. The author of *Nawabi Amal* asserts that only *one-sixteenth share of the zemindaries fell to the lot of the Moslems.*

A casual reader of the history of India is apt to run away with the idea that it was Akbar alone who adopted a policy of religious toleration and sought the co-operation of the Hindus in the administration. It has been pointed out that from the time of Ala-ud-din Khilji no Hindu ever laboured under any civil disabilities.

It will also be abundantly clear that there was no such thing as Moslem solidarity. The Moslem ruler enters into an alliance, offensive and defensive, with the Hindu chief, against his own co-religionist and the Hindu ruler in turn also does the same. The Moslem *as Moslem* is never found to show a jot of communalism.

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[3] When "Meer Jaffer having agreed to separate himself, with a large body of troops, from the Nabob's army" (Malcolm's *Clive*, Vol. I. p. 254), it was the Bengali Hindu, Mohun Lal and the Bengali Mussulman, Mir Madan, who did not desert the Nabob, showed prowess on the battle field, but could not of course retrieve the fortune of the day.

The Hindus had suffered from foreign invasions from the earliest times, but it often happened that the foreign conquerors were absorbed completely into the Hindu society as the Scythians. With Mohammedan conquerors, however, such absorption was not possible.

"The Muslim civilisation was distinct and individualistic and did not suffer absorption into the Hindu civilisation. The Muslim kings considered their wars as holy *jihads*, destroyed temples, converted the Hindus, and oppressed them. But gradually between the two great communities the spirit of toleration sprang up. The Muslim kings employed Hindu ministers, took the help of Hindu chiefs, married Hindu wives and patronised Hindu literature (especially the vernaculars). The Hindu kings of Vijaynagar employed Muslim soldiers, gave them land, built mosques for them and respected their faith. The Muslim Sultans also employed Hindu soldiers. The intercourse between the Hindus and Muslims in camp brought about a mixture in their language resulting in the origin of the Urdu language. The Muslim king, Zainul Abedin of Kashmir appointed Hindus to state offices and followed a policy of toleration. Similarly Hussain Shah of Bengal was liberal. . . . . Vernaculars were also patronised. Bengali owes no small debt to Hussain Shah and Nasrat Shah for its free development unfettered by Sanskrit. The Bengali *Ramayana* of Krittivasa and *Mahabharata* of Kasidasa are the household literature of the Bengalis. The poets, Vidyapati and Chandidasa, sang their exquisite lyrics.

"Reformers of catholic ideas preached the essence of religions, and rose superior to the dead forms of religion, and hard caste rules, and preached the equality and dignity of man as man. Ramananda, a follower of Ramanuja, was a high caste Brahman and preached in Hindi the cult of Ram (and Sita) to all castes, even Chamars or leather workers. The most important of his disciples were Raidas and Kabir. The latter was a weaver by caste. He taught that the God of the Hindus and Muslims is the same, there is no distinction between Ram and Rahim; in fact, all religions were equal. In Maharashtra Namadeva preached in Marathi that the God of the Hindus and Allah of the Muslims is the same One God. Both he and the Brahman saint Eknatha mixed freely with the untouchables, and taught dignity of man as a man. The Bauls of Bengal were preaching that man is man, and is above all caste or religion. Chaitanya flooded Nadiya and Bengal with his Bhakti Cult, taught equality and even had Muslim disciples. Vallabhacharyya established a Vaishnava Cult in Northern India. Nanak taught that truth is equally to be found in Islam and Hindnism, levelled caste distinctions and preached universal toleration.

He had many Muslims as his disciples.—K. P. Mitra: *Indian History for Matriculation*, pp. 112-115.

III—Spirit of Toleration in India and in Europe.

The fact is, the Hindu-Moslem *disunion* is of recent manufacture or creation. Three decades ago it was scarcely known. In my days of boyhood during the Durga Pujah festival, my father, grandfather, and great grandfather used to invite the Kazis of Gadaipur (near our native village) to attend the Jatras (*cf.* Vol. I, p. 410) and they invariably responded to the invitation. Such was the case everywhere in Bengal. Perfectly amicable and cordial relations existed between the two great communities.

Bradley-Birt writes thus of the amicable relations between the two communities in 1906 in his *The Romance of an Eastern Capital*:

"Even the Hindus pay homage at the shrine of Sheik Muhammad Yasuf. If the ryot is in fear for his crop, he brings a handful of rice. If his child is ill, or his cattle a prey to disease, he says some small propitiatory offering on the tomb. If the harvest has been plenteous, he gives a bundle of rice straight from the field as a thank-offering. In joy or in sorrow the tomb of the Saint plays its appointed part in the inner life of the people.

"A short distance away, across the fields, there lies the tomb of Pagla Saheb (Madman), so much venerated by both Hindus and Mahomedans that parents offer at it the 'coti' or queue of their children when dangerously ill."

Cf. also: "Religious quarrels between Hindus and Mahomedans are of rare occurrence. These two classes live in perfect peace and concord and majority of the individuals belonging to them have even overcome their prejudices so far as to smoke from the same Hookah."—Taylor: *Topography of Dacca* (1840), p. 257.

The contrast between Europe and India in so far as it relates to religious toleration is illuminating.

The history of Europe till lately is emphatically the history of religious persecution of the most revolting type. Not only the crusaders spurred on by the fiery anathemas and phillipics of Peter the Hermit and the like went through harrowing privations in their attempts to rescue the holy

sepulchre from the "infidels", but cruel long-standing wars originating in religious dogmas decimated and disfigured Europe for centuries.

Let me contrast the European crowned heads with their contemporaries in India.

"It was, therefore, with reason that Charles V at the close of his career, could boast that he had always preferred his creed to his country, and that the first object of his ambition had been to maintain the interests of Christianity. The zeal with which he struggled for the faith, also appears in his exertions against heresy in the Low Countries. According to contemporary and competent authorities, from fifty thousand to a hundred thousand persons were put to death in the Netherlands during his reign on account of their religious opinions. . . . : But we know that, between 1520 and 1550, he published a series of laws, to the effect that those who were convicted of heresy should be beheaded, or burned alive, or buried alive."—Buckle: *History of Civilization.*

"The Dutch wished to adopt, and in many instances did adopt, the reformed doctrine; therefore Philip (1555-1598) waged against them a cruel war, which lasted thirty years, and which he continued till his death, because he was resolved to extirpate the new creed. He ordered that every heretic who refused to recant should be burned . . . . Of the number of those who actually suffered in the Low Countries, we have no precise information; but Alva triumphantly boasted that, in the five or six years of his administration, he had put to death in cold blood more than eighteen thousand."—*Ibid.*

In comparison with this dismal episode India stands out in bright and bold relief. Into the Malabar coast Mohammedan inroads could not penetrate. In this region the Hindu kings enjoyed absolute immunity—but their spirit of toleration awakens our admiration. The Syrian Christians obtained a footing in Cochin and Travancore as early as the 1st or 2nd century. They were welcomed and offered hospitality and allowed to profess their religious practices without let or hindrance, with the result that to-day we find that fully one-third of the population of Travancore profess the Christian faith. When the Parsis persecuted in the land of their birth sailed to the Bombay coast, the Hindu Raja offered them safe asylum as shown above.

It has been seen that the Hindus during the Moslem Period from the 14th century onwards never laboured under civil disabilities on account of their religion and that a spirit of catholicity and toleration pervaded the policy of the rulers. Whereas within recent times in England not only Catholics but even dissenting Protestants were subjected to vexatious exclusions. Any student of the constitutional history of England is aware of this.

"The 'Test Act' (under Charles II) was intended to exclude all Catholics from office by a test which could not be evaded, and which would consequently compel all office-holders who were Catholics in secret to declare themselves.

"More striking in the popular judgment and equally essential to future progress were the steps taken towards religious toleration.

"The Test Act was at last repealed in 1828. In the next year the even more important 'Catholic Emancipation Act' was passed.

"The act of emancipation admitted Catholics to both houses of parliament and to all public offices, local and national, except a very few. Comparatively little yet remained to be done in this direction, but Jews were not admitted to Parliament until 1858, nor Non-conformists on equal terms to the universities until 1871."—Extract from the *Constitutional History of England* by George Burton Adam- Ed. 1933.

The French philosopher very rightly observes:

"Such, reigning over the greatest empire that has ever been, were those two admirable sovereigns, Antoninus Pius and Marcus Aurelius. History presents but one other example of this heredity of wisdom on the throne, in the persons of the three great Mogul Emperors, Baber, Humaioun, and Akbar, the last of whom offers such striking points of resemblance to Marcus Aurelius."—Renan: *Marcus Aurelius.*

CHAPTER XVI

LAW—ITS ADMINISTRATION.

"The revenue has been benefited by a Stamp Act at the cost of the poorest class of cultivators. . . . . Litigation has been greatly increased."—SIR JAMES CAIRD.

"The writers [on India] declare that, precisely in proportion as English courts of justice have extended, have perjury and all evils which perjury introduces into administration of justice prevailed throughout India".—JOHN BRIGHT: *Speeches,* ii. p. 42.

In the pre-British days the village *Panchayet* (lit. an assembly of five) was generally the court of arbitration and it was a very useful institution suited to the simple habits of the people. The decision was generally fair and impartial and swift in execution. All this is now changed. A zemindar now-a-days does not play the role of a dispenser of justice—if he did he would thereby bring himself within the clutches of the Penal Code. The people have also imbibed modern ideas and learned to value the "inestimable blessings" of the British Law Courts. Only when too late they realise that in seeking justice they have courted ruin—they have got justice, but with a vengeance. The hour makes the man. A class of cheats and sharks, in the shape of touts, have sprung up whose trade is to foment litigation and they have the remarkable knack of imposing upon the credulity of the rustics and winning their confidence. These pettifoggers are ever on the alert, and once in their serpentine coil there is no escape for the unfortunate victim (see p. 82). In the permanently settled districts there are interposed between the Government, which is after all the real landlord, the zemindar and the tiller of the soil, diverse sorts of tenures and under-tenures, sometimes as many as thirty as in Backergunge and Faridpur; and as the Hindu, and more so the Mahomedan, law

of succession entails endless division of the ancestral holdings, an abundant crop of litigation is always at hand.[1]

In the civil suit, it often takes years before a final decision is arrived at. What with endless adjournments and postponements—the appeal from the lower court to the higher court—*i.e.* from the Munsiff to the Sub-Judge and from the latter to the High Court, the case drags at each remove a lengthening chain. When it is remembered that both the plaintiff and the respondent have to cite a number of witnesses at each hearing and bear all their travelling expenses and the lawyer's fees, it will easily be understood what the administration of justice means.[2] The

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[1] Criticising the Bengal Tenancy Bill in 1884, Sir Roper Lethbridge remarked: "Over Bengal might be written 'If there is a paradise on earth for lawyers it is here.'"

[2] *Cf.* "But they (law suits) appear in many instances to be too heavy on suits for small demands, as will appear by the following statements on a demand for two rupees, which would be much more were the suit for landed property. This the plaintiff was to pay to Government alone, exclusive of the expense of serving the processes before his cause comes to be tried, though it is true that eventually the defendant will have to pay it in addition to his own expenses, *viz.*:

"Stamp paper for plaint, -/4/; fees for filing ditto, -/2/-; stamp paper for security for Vakeel's fees, -/4/-; fees for filing ditto, -/8/-; stamp paper for security to make good expenses of suit, -/4/-; fees for filing ditto, -/8/-; fees for issuing a summons, -/8/-; stamp paper for a copy of defendant's answers, -/4/-; stamp paper for a copy of rejoinder, -/4/-; fees for filing ditto, -/8/-; stamp paper for petition for issuing subpoenas, -/4/-; fees for filing ditto, -/8/-; fees for three witnesses, 1/8/-; issuing subpoena, -/8/-; two vouchers (only), 1/1/-; total sicca Rs. 7-6-0."—Beveridge: *Bakerganj*, pp. 426-27.

A veteran lawyer of Khulna recently gave me the following data for a suit for recovery of Rs. 500/- (*ex parte*):

	Rs.	A.	P.
Stamp for plaint	56	4	0
Vakalatnama	1	0	0
Process fee	1	0	0
Pleader's fee	7	8	0
	65	12	0

glorious uncertainty of law is proverbial ; on a slight technical flaw, the higher court upsets the verdict of the lower. The unhappy victim realises, when too late, his folly or infatuation. His cash which often means the store of the year's food-grains is soon exhausted ; his live-stock *i.e.*, plough-cattle, has then to be sold. He must then have recourse to borrowing money at exorbitant rates of interest by mortgaging his holding. He is in fact irretrievably ruined.

Once you have entered into a contest nothing is unfair. All the trickery which human ingenuity can devise is in requisition. Polonius's advice to his son is in point: "Beware of entrance to a quarrel but, being in, bear it, that the opposer may beware of thee". One very expeditious way of harassing the poor untutored ryot into unconditional submission is to file a suit against him at the sowing or reaping season. Every obstacle must be thrown in the way of his cultivating the land, or if he has a smiling crop in the field it must rot: the unhappy victim is dragged away from his homestead and has to dance attendance at the purlieus of the law-court seeking justice, and

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If it is contested and disposed of after adjournment after the appearance of the defendant :

	Rs.	A.	P.	
Stamp for plaint	56	4	0	
Process fee	4	0	0	
Stamp for Vakalatnama	1	0	0	
Process fee for service of summons upon 4 witnesses	1	0	0	
Witnesses' travelling	10	0	0	(minimum).
,, diet money	3	0	0	
Pleader's fee	15	0	0	
	90	4	0	

As a matter of fact a case is seldom disposed of after one adjournment. In a really contested case the expense of witnesses amounts to Rs. 76/- or even to Rs. 100/-. So the minimum cost of a Small Causes Court case may come up to Rs. 150/-.

Cf. also : An experienced lawyer of Calcutta (Mr. Taraknath Sadhu) narrates the tragic story of a suit involving realisation of Rs. 3-10-0 which cost each party from Rs. 5,000/- to Rs. 6,000/-.—*Monthly Basumati*, Baisak, 1930.

is thus soon brought to his senses, as the result of which he has to capitulate unconditionally.

I have not referred to the appeals to the Privy Council which in big suits have become of late years a regular feature of litigation entailing still heavier expenses. Justice, as administered in British law-courts, is almost invariably on the side of the longest purse. I need only cite here the cases on points of the Law of Succession, of the Dumraon and the Jharia Raj. It is believed that in the former case half-a-crore of rupees had been spent, and in the Jharia case, on local enquiry, sometime ago, I learned that some twenty-five lakhs had been already squandered.[3] Lawyers know full well that a season of good harvest synchronises with an abundant crop of litigation.[4]

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[3] *Cf.* "It is after twenty-seven years' proceedings that the end of a litigation relating to a will between near relatives in Bengal is at last in sight, by the judgment of the Privy Council—indeed, a striking instance of Law's delays, the repeated warnings of the authorities in India notwithstanding.

"Lord Blanesburgh who delivered the Privy Council's judgment condemned the extravagance characterising the litigation and said such expenditure was enough to 'bring the administration of the law into deserved disrepute'. My sincerest sympathy for the learned judges who must feel very uncomfortable at these unkind remarks of his lordship.

"By the bye at long last it is the Subordinate Judge's judgment that has been upheld and the High Court's decision against that judgment set aside. Legal wisdom is thus not the monopoly of the highest in the judiciary". The above is taken from a recent issue of the *Bengalee*.

[4] The state of things in the Punjab is exactly comparable to that obtaining in Bengal. Says Darling:

"There is one aspect of rural life in the Punjab which is commonly quoted as an example of the cultivator's extravagance and that is his almost passionate love of litigation. It is not uncommon to hear of suits dealing with the minutest fraction of an acre being fought up to the High Court, and of criminal cases involving the expenditure of thousands of rupees.

"In districts where there are great fluctuations of harvest every lawyer knows that his income will contract or expand in ratio to the quality of the harvest, which is a sign that the villager is quick to go off to the courts when he has any spare cash in his pocket. . . . . Not only have pleaders to be engaged and stamp duty and process fees to be paid but petty officials have to be propitiated—their demands are

Major Vanrenen, a big Zemindar in the Montogomery district and in Sind, who is in direct touch with his tenants, recently (Nov. 4, 1933) said:

"The extreme indebtedness, poverty, and hopelessness of India's millions are not of their own fault, but are due to a wrong financial system, and also I may add, to an expensive system of justice and a wrongly framed law. The law of contract is one-sided, and gives no protection to the poor and ignorant."

I—Dilatoriness of British Law.

The Meerut (Conspiracy?) case, which dragged on for four years and odd months is notorious on account of unprecedented duration. It created a good deal of noise and stir even in the British Parliament because among the accused were a few Englishmen. It cost the Government (*i.e.*, the public funds) some 13 to 15 lakhs of rupees. The sufferings of the accused were intolerable; one died from the effects of anxiety. Our Feudatories who always borrow a leaf from the British Government in matters of extravagance often go one better, as is exemplified by the *Riyasat* Case.

"The *Pratap*, an Urdu daily of Lahore, publishes that from a statement of accounts submitted by Mr. Mahomed Akram, Inspector General of Police, of the expenditure made in the case filed by Nawab of Bhopal against the Urdu paper, *Riyasat*, it has been learnt that within the course of three-and-a-half years, Rs. 65,800 was spent only on travelling and railway fare. Besides this amount, there were fees of lawyers and other expenses. Taking all together, the total amount nears to five lacs of rupees."—Daily paper, June 26/33.

"Mr. G. L. Subehdar, Assistant Judicial Commissioner, delivered judgment in the sensational *Riyasat* Case setting aside the conviction of Sardar Diwan Singh under the Princes' Protection Act and directing a retrial of the case at Hoshangabad. The learned Judicial Commissioner held that the trial in the lower court was vitiated on points of law."—*United Press*, Sept. 26/34.

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said to have risen with the rise of prices—witnesses may have to be hired, as much to prove what is true as to establish what is false, and perhaps the support of an influential neighbour has to be gained, all of which consumes both time and money."

LITIGATION A LUXURY

The *Statesman* recently (Dec. 9, 1931) in noticing Claud Mullins' *In Quest of Justice* observes:

"Lord Birkenhead recognised, as well he might, that it was quite possible for a plaintiff to win his case and to recover his taxed costs and yet to be out of pocket at the end—worse off than if he had waived his claim. A German observer has remarked that a law-suit in England is so dear that it is only possible for a rich man. It seems to be the fact that in Germany a money suit for about Rs. 700 would go through by each side spending about Rs. 60 in lawyer's fees. The British Chamber of Commerce reported that the average legal expenses of each side in a contested action for 7,000 Marks (£350) would be about £40. Compare this as a matter of proportion with the figures given at pages 203 and 205 of Mr. Mullins' book. In one case, in a claim for £40,000, the taxed costs of one side only amounted to £89,000. Much of the financial hardship thus exposed is brought about by the curious demand for 'fashionable' Counsel who are thus able, and do not scruple, to demand enormous fees. These fees are payable even, when by the pressure of other business they do not, because they cannot, give more attention to the case than could be honestly valued at a £5 note. Few members of the Bar would go to such men if they became involved in litigation themselves. . . . . You can spend as much as you choose upon Surgeons, Counsel, Dentists and Tailors, but it by no means follows that he who pays most is best served."

Mr. C. P. Harvey, a practising lawyer, in his *Solon or the Price of Justice* (1931), has some very sound observations to make on the costliness, dilatoriness and uncertainties of English law. A few pertinent quotations are given below:

"This author (William Durran) contends that the lawyer is nothing but an incubus, an old man of the Sea who has squatted for generations on the shoulders of society. Such social progress as we can see around us has resulted not because of, but in spite of, the efforts of legal profession, whose interest has always been to render the law incomprehensible to all but its members. Our legal history, says Mr. Durran, is deplorable.

"Litigation is a luxury within the reach only of millionaires and paupers. For the man of moderate means it is far cheaper to settle disputes out of court or simply to leave them unsettled. [Unless a man declares himself entirely without means the State does not lend him help.]

"It is a common experience for a successful plaintiff who has recovered judgment for about £25 to find himself only a few pounds

in pocket as the result, while his adversary's expenses will amount to £50 or more.

"Accordingly this dispute about £120 cost the merchant several thousands of pounds. And the immediate cause of the catastrophe was the fact that so many judges thought that he was right. But the over-riding cause was the ramifications of the legal system. Even if he had won the case in the House of Lords he would still have been considerably out of pocket.

"It would not be difficult to multiply instances where the expenses of actions in the High Court have proved entirely disproportionate to the value of the matter at stake. A party who goes to law can never know what the case may cost him in the end, or whether his opponent will run him through the whole gamut of appeal tribunals. If he does, the plaintiff may be out of pocket even though he ultimately wins his case. If he loses it, he may be ruined."

The old *Panchayet* system or even the faulty and imperfect, nay corrupt, procedure of administering justice by the Zemindar or his agents was on the whole conducive to the welfare of the ryot.[5]

Reference has already been made to the farcical character of proceedings being conducted in a foreign tongue (p. 63). Sir Henry Cotton, in his *Indian and Home Memories*, narrates:

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[5] *Cf.* "The inert Bengali landowner living from youth to age in his ancestral home and distributing a rude and unequal justice among his tenantry etc."—Beveridge: *Bakerganj*, 1878, p. 386.

Cf. "The native litigant who had a good case preferred to appeal to the *Panchayet* but he who had a bad one sought the decision of a Collector . . . . for discriminating the motives of action and the chances of truth in the evidence . . . . the *Panchayet* an admirable instrument . . . . and lawyers were becoming numerous as the result of a false education."—Ramsay MacDonald: *Awakening of India*, pp. 116-17.

"I think that we should look forward to the time when India can be left to herself, and that we should hasten its coming by putting the internal administration more and more into the hands of natives. For example, probably nearly all the judicial offices in Bengal might be held by natives. They will work for less pay than Europeans, and their knowledge of the language and customs of the people, and their not requiring long furloughs to Europe in order to recruit their strength, give them an immense advantage over foreigners. I do not overlook the advantages possessed by Europeans, but I think that none of them counterbalances the superiority of the Bengalis in the above mentioned points."—Beveridge: *Bakerganj*, p. 396.

"I was never a good linguist, but I learned to speak Bengalee fluently and Hindustani colloquially, and could write and read the Bengalee and Persian characters with facility. It was much easier to learn the vernacular languages then than it is now. All the ordinary work of the office was done in the vernacular; very few of the clerks knew English, and the pleadings in court were always in Bengalee. Nowadays all this is changed: an English-speaking class of court officials has come into existence; the pleaders or *mukhtars*, who knew no English in my day, now all plead in that language, and the young civilian is no longer compelled, as it were, to think and speak in the vernacular if he is to transact any business at all. For my part, when I was in charge of a Subdivision a year or two later I did the whole of my office work in Bengalee except correspondence, and for weeks and months together spoke no other language while in office."

Owing to the dilatory and costly nature of litigation, experienced opinion even in England is veering round settlement of disputes by conciliation board.

"Sir Edward Parry recently said that litigation was usually so expensive that it was almost out of the reach of the poor. . . . The other day he read of a divorce action the costs in which amounted to £20,000.[8] That might be all right for rich people, but not for the poor. A good deal of what was recovered in litigation went in costs. He had calculated that over a period of years about 10s. in the pound of the amounts recovered in the country courts went in fees and costs. . . . . To his mind litigation was out of date because of the enormous delay and cost. Looking back over the thirty-three years that he was a County Court Judge, he believed that if he could have got at the poor people before they had spent a penny he could have settled from 75 to 80 per cent. of their cases and saved their money. Abraham Lincoln, who was a great lawyer, and whose training was largely gained in dealing with poor people's cases, once said: 'A good settlement is better than a doubtful law suit'.

"The principle he was advocating was not new. It was in operation in the Scandinavian countries—in Norway, Sweden, and Denmark. In these countries from 80 to 90 per cent. of the cases were first brought before the conciliation courts, and most of them were decided by the official conciliator. That was the main principle of his proposal. No doubt some lawyers would lose fees. The treasury, too, would lose fees,

[8] *Cf.* "Criminal proceedings against Cardinal Newman for libel, resulted in an acknowledged gross miscarriage of justice. He was found guilty and was sentenced to pay a fine of £100, while his expenses as defendant amounted to about £14,000—*Encyl. Brit.*, 11th ed.

and any scheme of betterment which would cause the treasury to lose half a crown would be very difficult to see through in this country."

New China is making a right move in this matter. There the civil litigants must attempt mediation before legal action.

"According to a report from Nanking on August 1, the newly promulgated law governing mediation in civil disputes and procedure of mediation is expected to do away with much unnecessary and expensive litigation in the courts. A spokesman of the Judicial Yuan in reference to the new law stated that it stipulated that before a civil action is brought in the Court, a settlement through mediation must first be attempted and the Courts have been instructed not to entertain petitions in civil actions unless mediation had first been attempted. The law provides for the organisation of a mediation bureau which will be attached to all courts, the board to be composed of three members to be selected by the parties to the dispute with a Judge of the Court acting as Chairman. Legal practitioners are prohibited from serving as mediators. The purpose of the new regulation, according to the Judicial Yuan, is to relieve parties to civil disputes from heavy expenditures for professional services and also to relieve the courts from congestion caused by the filing of cases which might be mediated."—*The China Weekly Review*, Aug. 9, 1930.

The elaborate machinery of civil law—codified and methodised—and the criminal code based upon Roman jurisprudence with centuries of additional details imported *en bloc* are utterly unsuited to the habits and instincts of the people. It is forgotten that 95 per cent. of our peasantry, I had almost said 100 per cent., are ignorant and illiterate and 50 per cent. of these again live on the verge of starvation. For them the British law-court is too much of a luxury. You might as well ask them to drive in a Rolls Royce or travel in a Pullman car.[1] Macaulay who himself was the first Law-member during the

[1] How litigiousness sucks away the life-blood of the people may well be illustrated by another tangible instance. The railway services (as between Khulna and Calcutta) as also bus and narrow gauge railways with corresponding inland steamer runnings have of late years become a regular feature throughout the land. Swarms of litigants thus daily pour in from the remote quarters. The huge profits from these rapid means of transport swell the pockets of the British capitalists and are a source of additional drain of wealth.

Governor-Generalship of Lord William Bentink wrote in 1841 in his *Essay on Warren Hastings*:

"There are few Englishmen who will not admit that the English law, inspite of modern improvements, is neither so cheap nor so speedy as might be wished. Still, it is a system which has grown up among us. In some points, it has been fashioned to suit our feelings; in others, it has gradually fashioned our feelings to suit itself. Even to its worst evils we are accustomed; and therefore, though we may complain of them, they do not strike us with horror and dismay which would be produced by a new grievance of smaller severity. In India the case is widely different. English law transplanted to that country, has all the vices from which we suffer here; it has them all in a far higher degree; and it has other vices, compared with which the worst vices from which we suffer are trifles. Dilatory here, it is far more dilatory in a land where the help of an interpreter is needed by every judge and by every advocate. Costly here, it is far more costly in a land into which the legal protection must be imported from the labour of the Governor-General and the Commander-in-Chief, down to that of a groom or a watchmaker, and must be paid for at a higher rate than at home. No man will be banished, and banished to the torrid zone, for nothing. The rule holds good with respect to the legal profession. No English Barrister will work fifteen thousand miles from all his friends, with the thermometer at ninety-six in the shade, for the emolument which will content him in chambers that overlook the Thames. Accordingly the fees at Calcutta are about three times as great as the fees of Westminster Hall, and this, though the people of India are beyond all comparison, poorer than the people of England."[*]

In the celebrated soliloquy of Hamlet the immortal bard complains bitterly of the "law's delay" which impels one to put a period to his existence. The following extracts from Carlyle's *Oliver Cromwell's Letters and Speeches* (1897) may be quoted here with advantage:

Cromwell "spake somewhat against Lawyers, what a tortuous ungodly jungle English Law was".

"Cynical Law-Pedant, and invincible living heap of learned rubbish". —*Ibid.*, I. 74.

Again, "my erudite friend, the astonishing intellect that occupies itself in splitting hairs, and not in twisting some kind of cordage and

[*] Although the distance has now been abridged and the Indian barristers have practically captured the bar, the fees far from being reduced have rather gone up.

effectual draught—tackle to take the road with, is not to me the most astonishing of intellects."—*Ibid.*, III., 5.

"But alas . . . finding grievances greater than could be borne; finding, for one thing, 'Twenty-three thousand causes of from five to thirty years' continuance lying undetermined in Chancery, it seemed to the Little Parliament that some Court ought to be contrived which would actually determine these and the like causes; and that, on the whole, Chancery would be better for abolition. Vote to that effect stands registered in the Commons Journals, but still, for near two hundred years, now, only expects fulfilment".—*Ibid.*, III., 79.

"What is 'Incumbrance'? No mortal can tell. They sit debating it, painfully sifting it, 'for three months'; three months by Booker's Almanac, and the Zodiac Horologe: March violets have become June roses; and still they debate what 'Incumbrance' is;—and indeed, I think could never fix it at all, and are perhaps debating it, if so doomed, in some twilight foggy section of Dante's Nether World, to all Eternity, at this hour!—Are not these a set of men to reform English Law?" —*Ibid.*, III., 17.

"And I remember well, at the old Parliament we were three months, and could not get over the word 'Incumbrance' and we thought there was little hope of 'regulating the Law' where there was such difficulty as to that. But surely the Laws need to be regulated'.—*Ibid.*, IV., 104.

"But the Lawyers exclaimed, 'Chancery? Law of the Bible? Do you mean to bring in the Mosaic Dispensation, then; and deprive men of their properties; and us of our learned wigs and lucrative long-windedness—with our search for 'Simple justice' and 'God's Law' instead of Learned—Sergeant's Law"—*Ibid.*, III., 79.

Our paternal Government—a huge soulless machine—looks complacently on as it derives a large income from the administration of law or justice, in the shape of stamps and court-fees. Even eminent English writers on India have been known to pronounce their considered opinion that the British rulers actually *sell justice*.[1] Unfortunately no reform in this

[1] Every Moonsiff on an average earns for the Government about 30 to 40 thousand rupees per year.

"The whole cost of the administration of justice in Bengal, both civil and criminal, including all judicial salaries, is borne by civil litigants.

direction can be looked forward to as our political leaders are practically recruited from the legal profession and these are the very people who, from the mere instinct of self-preservation, are interested in the perpetuation of the present pernicious system. These parasites wax fat by sucking the life-blood of the rural population and of the Zemindars. It would be futile to expect any movement for the reform of the administration of justice from the gentlemen of the long gown. You might as well appeal to the tiger to give up its carnivorous instinct and take to grass. Once you create vested interests, you create along with them their powerful supporters. If the great and masterful Lord Protector of England proved powerless, nay, had to quail before the storm of indignation he had raised, it is not to be expected that any spasmodic or feeble efforts will prove of any avail.

II—Administration of Criminal Justice.

An eminent Chief Justice of Bengal, Sir Richard Garth, wrote in 1893 in a booklet, "A few plain truths about India" thus: "When the functions of a policeman, a magistrate and a judge are all united in the same officer it is vain to look for justice to the accused.... It is only wonderful that a system so indefensible should have been allowed to prevail thus long under an English Government." At a later date, a high officer of the Government of India, Sir Harvey Adamson, said: "Can any Government be strong whose administration of justice is

"In the Report on the Administration of Civil Justice in the Presidency of Bengal during the year 1932, it is stated that the receipts of the High Court on the Original Side were over Rs. 23 lacs, or, omitting probate and administration duty, nearly 8 lacs, whereas the expenditure was under 5¾ lacs, leaving a profit of approximately 15 lacs. The receipts of the Civil Courts in Bengal and of the High Court on the Appellate Side, amounted to 185 lacs (an increase of over 12½ lacs), whereas the expenditure amounted to under 79 lacs (a decrease of over 4½ lacs). Including the amount realised on account of duty on Probate the profit to Government from civil litigation amounted to Rs. 106,07,820 and excluding this item to Rs. 72,31,990."—N. C. Chunder: *The A. B. Patrika*, April 26/34.

not entirely above suspicion"? The present Indian Government which is constantly forging fresh weapons in order to be able to maintain law and order in the land, cannot claim to be a strong Government. But our rulers believe that a strong executive dealing out "executive justice" is the only thing India needs. A writer in the *Calcutta Review* said in 1897 that the idea of what is termed "a strong judge" means a judicial officer whose strength consists in convicting without evidence. An I. C. S. man who signed himself "Judge", stated nakedly in 1912 in a letter to the *Times* that for the purpose of efficient district administration it was necessary to convict criminals on unsupported police evidence.

I have said and cited enough to prove that the proud boast that under the British Government justice, as administered between man and man, is pure and unadulterated is to be received with reservation. It is dilatory and ruinous to the people, and partakes of the nature of a gamble and luxury which few can afford. Those who live in Calcutta (*i.e.*, within the jurisdiction of the Fort William) have to go to the High Court (Original Side), which means that you have to approach the counsel through the attorneys. The procedure involves not only interminable delay, but spells ruin to the parties seeking justice. Litigation like freedom's battle is bequeathed from the bleeding sire to son and finally ends in financial disaster.

An experienced judicial officer to whom this chapter was submitted in manuscript has favoured me with the following observations.

"The public have little confidence in the courts of law. The litigant public at large have mainly to do with the subordinate courts of law, and there they come face to face with a situation which is nothing short of distressing. At the bottom there are the corrupt *amlas* ever ready to fleece, and at the head there are the judicial officers supposed to be responsible for every thing going on, but in reality who are nothing but overworked machines for 'clearing the files' having very little independence or time to see or think what is what. The genesis of a condition like this is not far to seek. The subordinate judiciary has

to work under a perpetual strain because of the enormous pressure of work and besides its angle of vision is always deflected by the intervention of the superior officers and by an artificial standard obtaining for assessing its merit. It is almost an open secret that the promotion of a subordinate judicial officer depends more upon the quantitative disposal of his work than upon its inherent quality. A form like this cannot but hamper dispensation of substantial justice by subordinate officers, who become naturally prone to make a fetish of 'disposal'. And as a matter of that the word 'disposal' is almost a charm word with the judicial officers, and about disposal they simply behave ridiculously. Between themselves the only topic they would hungrily discuss is about their respective disposals. They would compare notes and perchance one officer has to his credit a better record of disposal than another, the latter would brood over it and pass sleepless nights lest the lesser output of his work might be the cause of an immediate rebuff or an obstacle to his future promotion. There can be no gainsaying that 'disposalism'—if such an expression might be coined—has created a positive vicious outlook psychologically amongst the judicial officers creating a deadlock of their judicial honesty and sometimes even conscientiousness. Thus justice is soiled for the sake of disposal. A case has to be disposed of no matter how, no matter whether justice is done or not, for disposal is the key to success in official life. Nothing can be more deplorable. Then it may not be known to the general public that 'tardy justice' which is the burden of criticism against law courts, is due to the fact that every judicial officer has to cope with more work than he can physically handle. The work every officer has to do is simply colossal. In court he has to work hard for disposing of cases and at home he has to write out judgments. He works and works all the waking hours of the day and consequently he has to lose touch with the outside world and all its progresses and problems and slowly and imperceptibly becomes queer and angular in his social life and enormously ignorant of everything else than his own work. And even in the matter

of dispensing justice he has an eye more upon the narrow technicalities of law than upon substantial justice. It is no wonder therefore that the course of justice is not only costly but also precarious and that the subordinate courts are full of corruption because the judicial officers have no time to look to things personally but have to depend upon the *amlas* in most things unconnected with the actual disposal of cases. And it is equally well-known that the *amlas* of the court are open to constant temptation because every litigant would like to steal a march over his opponent, if he can, by paying secret bribes. And it being known that the judicial officers can hardly keep an eye upon what their subordinates do, the latter are put to constant persuasion by litigants and even by their pleaders to hamper justice for a price. Thus corruption at the bottom and an imbecile hankering for disposal on the part of the judicial officers at the cost of their health and efficiency and fairmindedness have brought about an unenviable state of affairs, so much so that the law courts have become so many places of gambling; and people come there only when they are driven to extremes. And it is not a matter of little disgrace that there are many who do not hesitate to take advantage of the courts of law, sometimes successfully, for the pursuit of their petty gains or for giving vent to their spleen or for crushing innocent men supposed to be in their way. Thousand pities that the courts of law, with their corrupt *amlas* and over-worked, narrowminded and timid judiciary have become places of dread."

III—Administration of Justice during the Muslim Rule in India.

The following extracts will throw light on the subject:

Akbar's Idea of Justice.

Speaking of this Emperor Mr. Vincent Smith quotes from the *A'yin-i-Akbari* the saying of Akbar, "If I were guilty of an unjust act, I would rise in judgment against myself," and then observes—"The saying was not merely a copy-book maxim. He honestly tried to do justice according to his lights in the summary fashion of his age and

country."—Wahed Hosain: *Administration of Justice under Moslem Rule*, p. 32.

Akbar used to decide suits and hear appeals at his *Daulat-khánah* (the Chamber of Audience in the Palace) "generally after 9 o'clock in the morning when all people are admitted." But "this assembly is sometimes held in the evening and sometimes at night. He also frequently appears at a window which opens into the *Daulat-khánah* and from thence he receives petitions without the intervention of any person, and tries and decides upon them."—*l.c.* p. 34.

"Both Sháh Jahán and Aurangzeb held no public court on Wednesday, but reserved that day for holding a court of law. The Emperor came direct from the *darshan* window to the *Diwán-i-Khás* (or Hall of Private Audience) at 8 A.M. and sat on the throne of justice till midday. This room was filled with the law-officers of the Crown, the judges of Canon Law (Qázis), judges of Common Law (ádils), Muftis, theologians (Ulama), Jurists learned in precedents (fatwás), the superintendent of the law court (darogha-i-adálat), and the Kotwál or prefect of the City police. None else among the courtiers was admitted unless his presence was specially necessary. The officer of justice presented the plaintiffs one by one and reported their grievances. His Majesty gently ascertained the facts by enquiry, took the law from the Ulamá and pronounced judgment accordingly."—J. N. Sarkar: *Moghal Administration*, quoted by Wahed Hosain, *l.c.* pp. 39-40.

ADMINISTRATION OF JUSTICE IN THE REIGN OF JAHANGIR

"The most noticeable and attractive feature of the Royal Court were the golden chain and bells hung up by the Emperor Jahángir. One end of the chain was fastened to the battlement of the Sháh Burj of the fort of Agra, and the other to a stone post fixed on the bank of the river. Jahángir loved to do justice and took keen interest in its administration. This device was adopted by the Emperor so that litigants and the aggrieved persons could tie their petitions to be drawn up to the Emperor and avoid the harassment of the porters and court-underlings."—*l.c.* p. 41.

ADMINISTRATION OF JUSTICE IN THE REIGN OF SHAH JAHAN.

"The reign of Sháh Jahán is notable for peace and prosperity. The French traveller Tavernier speaks of the reign of Shah Jahan as like that of a father over his family, and being a pious Muslim abolished the ceremony of prostration which was directly against Islámic injunctions. Sháh Jahán himself heard petitions and fixed Wednesday as the days for the administration of justice."—H. M. Elliot: *History of India*, Vol. VII, pp. 170-73.

"The reasons for the paucity of cases and lack of litigation are obvious. In the *first place*, there was no passion for litigation. People lived a simple life unaware of law's crookedness. . . . *Secondly*, the country had peace and prosperity, and the people lived self-contented under a strong government. *Thirdly*, the ordinary quarrels and caste-disputes were settled by the village *Punch* which exercised great influence upon the people in rural areas. The Muslim Government never interfered with the village autonomy; on the contrary, they encouraged it and left the rural affairs in the hand of the village *Panchâyet*."—Wahed Hosain, *l.c.* p. 46.

ADMINISTRATION OF JUSTICE IN THE REIGN OF AURANGZIB.

"Aurangzib's idea of justice may be gathered from his letters. In one of them, written to Shaá Jahán, he says, 'Sovereignty is the guardianship of the people and not for self-indulgence and profligacy.' As he was a stern puritan, so was he a strict dispenser of justice. The author of the *Mirâat-i-A'lam* gives the following description of this Emperor.

" 'He appears two or three times every day in his court of audience with a pleasing countenance and mild look, to dispense justice to complainants who came in numbers without any hindrance, and as he listens to them with great attention, they make their representations' without any fear or hesitation, and obtain redress from his impartiality." (quoted from Elliot's *History of India*, Vol. vii. p. 158).

Alexander Dow in his *History of India* gives the following account of Aurangzib's mode of dealing out justice:

"He knew that the power and consequence of the prince depended upon the prosperity and happiness of the people; and he was even from selfish views an enemy to oppression, and encourager of agriculture and commercial industry. He established a perfect security of property over all his dominions. The forms of justice were made less intricate and more expeditious than in former reigns.

"Capital punishments were almost totally unknown under Aurangzib. The adherents of his brothers who contended with him for the empire, were freely pardoned when they laid down their arms."—Dow.

On the subject of punishment Pringle Kennedy, the author of the *History of the Great Mughals*, observes:

"My reader will note with surprise that Aurangzib was slow to punish, but the history of his whole reign shows that save in cases where he feared for his throne, particularly from his relations, he was exceedingly lenient. Pyramids of skulls had no fascination for him.

We read nowhere in his reign of massacres, nor of cruelty such as is to be found in the annals of the earlier Mughals."

It is the fashion now-a-days among certain writers to take for granted that in the time of the Nawabs of Bengal justice as between man and man was unknown and that impartial administration of justice is one of the manifold blessings of British Rule. Numerous instances, however, may be adduced in proof of the fact that cheap, expeditious and even-handed justice was often meted out.

"Moorshid Cooly Khan devoted two days in the week to the administration of justice and so impartial was he in his decision and so rigid in the execution of the sentences of the law, that he sent his son to death for an infraction of its regulations. [In this respect he may be compared to Lucius Junius Brutus].

"Vakeels were continually in search of complaints and whenever they met with any person who had reason to be dissatisfied they used every endeavour to pacify him, but if it happened that a well-founded complaint reached the ears of Moorshid Cooly the offender was sure to suffer severely. If officers of justice out of partiality or respect to rank, neglected to redress the meanest person, upon the representation thereof from the party aggrieved, the Nawab tried the case himself, and in his decisions showed neither favour nor affection to anyone, the rich and the poor bearing equal value in his sight."—Stewart: *History of Bengal.*"

CHAPTER XVII.

Expensive Habits of our University Students.

I have given elsewhere some examples from England and America and from India as well of men born in the ranks who have worked their way up. In Bengal, or for the matter of that in India, our boys have to be spoon-fed from the beginning. Even their guardians have strange notions of dignity.

The average college student is supplied with a monthly allowance varying from Rs. 40 to Rs. 50. Being a "scholar" he is treated as something sacrosanct. His parents who often deny themselves the bare necessaries of life or even mortgage their homesteads or lands so as to meet the monthly remittances do all the drudgery of the household. During the holidays[1] the young hopefuls being exempted from the so-called menial work, waste their precious time in gossipping, card-playing and in organising amateur theatrical shows or in an extra dose of sleep in the afternoon. In ancient India, however, the scholar, while receiving instructions under the *Guru* in the *Asram* (hermitage as residential quarter), had to tend the cow, collect fuel, look after agricultural operations; in brief, he had to earn in order to learn.

I—Residential Hostels and Westernisation.

Hostels, specially those that are under Government supervision, have begun to be so many hot-beds for the dissemination of the anti-swadeshi cult. It was in an evil moment that Lord Hardinge, though no doubt from the best of motives, granted some 15 lakhs of rupees to the Calcutta private colleges for the construction of palatial hostels equipped with all the amenities of modern "civilized" life. A student living in these

[1] In the Intermediate and Bachelor Course of two years each there is generally six months' holiday and in the Post-graduate Course full seven months' recess in the year.

so-called residential hostels cannot manage on less than Rs. 45 a month. Most of them, however, exceed the limit. Some of my Punjabi friends living in Calcutta assure me that in the Punjab, especially in the city of Lahore, the cost of maintaining their boys or wards often runs up to as much as Rs. 100 a month and even more, and they simply skin their parents.[2] I have myself been several times there and can verify the statement. Our authorities have Cambridge and Oxford before their mind's eye and they want to transplant them here. The students must have blazers and trousers for tennis, flannel suits for cricket. Their toilet again costs a mint of money. In fact, every student brought up under such pernicious atmosphere becomes a missionary for the foreign exploiters. Five years ago while I was in Paris I found on inquiry that there were thousands of students from Poland and the adjacent countries who boarded and lodged on an allowance which would appear to us ridiculously small. Even now in the University of Prague, one of the oldest in Europe, where the best scientific and literary education is imparted, students have to manage on incredibly small means.

No wonder Mr. Bernard Shaw should denounce Oxford and Cambridge as breeding grounds of snobbery and would, if he had power, raze those two universities to the ground. No wonder Mr. Ramsay MacDonald should authoritatively declare: "I believe University life does more harm than good to most men".

[2] A Panjabi gentleman says: "The illiterate, rich cultivators of canal districts of the Punjab send their sons to be "educated" at the Lahore Colleges. They (1) spend from rupees one hundred to three hundred per month; (2) attend almost daily the cinemas; (3) buy regularly from European shops; (4) dress and live in Western style; (5) cheat parents by writing false letters, *e.g.*, a blotter is worth fifty rupees; (6) are encouraged by European teachers in their work of Westernisation; (7) smoke cigarettes *ad nauseum*, and do worse things."

The Punjab University Inquiry Committee's Report says: "We have received much evidence that earnest studiousness is declining, that students are becoming alarmingly frivolous and extravagant, that habits of intemperance and gambling are increasingly prevalent and that sexual immorality is not rare among them."

And what is the average earning capacity of a graduate? I inquired of Prof. K. T. Shah, a high authority, the other day as to the average income of graduates in Bombay. He assured me that it could not exceed Rs. 25 per month.[1] This is also my calculation of the average income of graduates in Madras and Calcutta. Evidently the Land of the Five Rivers overflows with milk and honey otherwise such a state of things should not have prevailed there!

Herbert Spencer talking of fashion in England says: "Life *a la mode* instead of being life conducted in the most rational manners, is life regulated by spend-thrifts and idlers, milliners and tailors, dandies and silly women."

"Fie on the education and 'culture' which teach you to discard the home-spun in favour of the flimsy and fine texture of the foreign mills! Fie on the education and 'culture' which teach you to look upon the *hooka* and the *forshi* as relics of barbarism. If you will insist upon smoking cigarettes, why not smoke the indigenous cigarettes, the *biris*? But then the powdered tobacco in the *biri* is genuine swadeshi enclosed in swadeshi leaves, whereas the cigarettes contain the *bideshi* doctored-up drug with a golden colour and rolled up in thin flimsy *bideshi* papers and you are instrumental in draining away 2 crores of rupees annually in this alone. I have visited some of the *biri* factories round about Gondia and was informed that in that barren, parched area of the Central Provinces almost 50,000 men, women, boys and girls earn, on an average, one to two annas a day. Thus, this pre-eminent home-industry is the means of bringing a morsel of bread to half-a-lakh of hungry mouths. Now, who are the purchasers of these *biris*? Not the highly placed officials and successful lawyers, nor the college-educated youths boasting of 'culture', but the coolies, carters and such-like folks. The so-called intelligentsia are so many parasites fattening upon the sweated labour of the masses, the tillers of the soil, the real producers of wealth, and are instruments of the draining away of the wealth of the land."—*Vide* my address on the opening ceremony of the Lahore Exhibition (Dec. 20, 1929).

The student, when he comes to town from the rural districts, imitates his comrades and imbibes costly habits. His clothes have to be washed not by the ordinary *Dhobi* (washer-

[1] This was written four or five years ago; the unemployment of the graduates throughout India has since become an awful problem.

man) but by the "Dyeing and Cleaning" firms, his hair must be cropped not by the ordinary barber but in the fashionable "Hair-cutting Saloons". Then in the afternoon he has his refreshments in the "Restaurants" springing up mushroom-like in the Indian quarters of the town. In the evening he goes to the cinema at least twice a week. He conveniently forgets how much his poor parents have to pinch themselves to meet these expenses. There is a certain degree of selfishness bordering almost on meanness on the part of the "scholar" in thus levying forced contributions and spending them on luxury. Of course a student may be justified in drawing upon his guardian's resources for his expenses, but these should be limited to the irreducible minimum.[4]

Almost contemporaneously with me H. G. Wells was living in London. He had been granted a free-studentship at the Normal School of Science, South Kensington, carrying with it a maintenance grant of a guinea a week.

"Twice in my time undernourished men fainted altogether in the Laboratory. I paid in health for South Kensington all my life." Again, "I had to live on my weekly guinea. By 1887, it (my body) had become a scandalously skinny body. I was as light, as thin as I have said because I was under-nourished"—H. G. Wells: *Autobiography*, Vol. I.

I have stated in the proper place that at Edinburgh (1882-88) I could live fairly comfortably on £100 a year supple-

[4] Those who light-heartedly fleece their guardians might profitably read the following:

"It was a hard life. In the winter father and I had to rise and breakfast in the darkness, reach the factory before it was daylight, and, with a short interval for lunch, work till after dark. The hours hung heavily upon me and in the work itself I took no pleasure; but the cloud had a silver lining, as it gave me the feeling that I was doing something for my world—our family. I have made millions since, but none of those millions gave me such happiness as my first week's earnings. I was now a helper of the family, a bread-winner, and no longer a total charge upon my parents."—Andrew Carnegie: *Autobiography*, p. 34.

This self-made man gave away in benefactions, all told, something over $350,000,000, *i.e.* one hundred crores of rupees.

mented by occasional remittances from home. Living was much cheaper there than in London. My landlady used to supply an abundance of coal for heating the room free of charge, while in London for every scuttle of coal the charge was 6d.. extra.

Cinema-goers suffer from something like alcoholic craving. Boys are known to deprive themselves of refreshments and thus save money for cinema tickets. Many college students though they suffer from malnutrition must needs frequent cinema houses. A young medical friend of mine who feels keenly on the subject writes to the papers:

"Cinema Talkie houses are springing up like mushroom throughout Calcutta and in mofussil towns—not only in Bengal but also all over India. Apart from economic question, they are, in many places, doing positive mischief to the country. The artistic, recreative, and educative values of the film-shows are being thrown in the back-ground and most of the films, are characterised by scenes and talks which are calculated to stimulate sex-desire among people and its effect on young mind—specially the young students, both males and females—is decidedly harmful. The young students should be protected from this moral damage at this young age when the sex-instinct just begins physiologically to be on the increase and the responsibility ought to lie on educational bodies. Some of the posters which are posted in public places along public streets to the rude gaze of the public are so very obscene, containing figures, males and females, in all sorts of objectionable postures and dress that they cannot be looked at; yet they cannot but attract the eyes of all the passers-by,—including boys and girls, and others, who even do not think of going to the cinemas and their effect on the society is surely demoralising.

"I have published my emphatic protest against them on various occasions and there should be a stop to these sorts of films or parts of films and posters. I am sorry most of the influential men in our country have been silent on the matter. The Cinematograph Act is said to have no control over the posting of posters; but the films themselves are not being scrutinised well before being allowed to be shown publicly as many contain pictures and expressions which are in many places objectionable. Hence the Act ought to be modified if required.

"The Calcutta University and educational bodies ought to interfere in this matter for the sake of the young students whose responsibility of education they have taken up."—Sudhir Bose, M.B.: *A. B. Patrika*, Aug. 15/33.

In short, the cinema shows tell upon the moral and physical health of the student community besides taxing their slender purse. They are shut up in stuffy congested atmosphere for hours and their eye-sight being put on the strain also suffers. The urge towards sensuous fantasies is the most objectionable feature.

II—Student Life in Prague.

In America now the richest country in the world, a great many University students *earn while they learn* as stated before. On the continent of Europe also students often manage on an allowance which may appear incredible to us. The detailed account given below by Dora Round needs no apology for insertion.

"Prague University offers to the present day student the heritage of a tradition unlike that of any other University in Europe. It is a tradition of internationalism, which was implanted in the University at its foundation, and which in spite of a chequered and sometimes stormy career, it never lost as other Universities did after the Renaissance. This internationalism, inherent in the University's tradition, has taken on a special significance to-day and gives the University a distinctive character.

"When Charles the Fourth founded the University in 1348, his intention was not merely to give a University to his own people, but to found a centre of learning such that it should attract foreign scholars as well. Learned men from many lands were invited to Prague to lecture there, and following in their wake came students not only from the neighbouring countries of Germany, Hungary and Poland, but from as far a field as France and England. The new University, the first to be founded north of the Alps and east of Paris, leapt into fame at once, and drew scholars and students from all parts, who were accorded protection and privileges by Charles.

"This tradition of internationalism is very much alive at the present day owing, among other reasons, to the multi-national population of the State, the absence of those restrictions on foreign students which exist in all the neighbouring States, and the University's prestige as the oldest in Central Europe and the chief centre for Slavonic studies. Furthermore, the authorities of to-day, as at the time of Charles, make a deliberate effort to attract students to Prague from the more distant countries in addition to those who naturally gravitate thither from the neighbouring States. There are special scholarships for foreign students

to enable them to study here, and though in some cases the scholarships are reciprocated by the countries from which the students come, in other cases—that of English students, for instance—the hospitality is all on the side of Czechoslovakia.

"Apart from these deliberate importations, the student situation in Prague is extraordinarily variegated in the matter of nationality. Of the twenty thousand[6] students in Prague, over sixteen thousand are Czechoslovak subjects, but not quite twelve thousand are Czech or Slovak in nationality; the remaining four thousand or so are of other nationalities, citizens of the Republic: Germans, Hungarians, Ruthenians and Poles. Among the four thousand students who are not Czechoslovak citizens the situation is still more complicated, since their nationality and their citizenship are often not identical. For instance, there are over two thousand students who are Russian, Polish, Ruthenian or Ukrainian by nationality, but only one thousand seven hundred who are citizens of Russia, Poland or Ukrainia; there are only one hundred and seventy two who are Serb, Croat or Slovene by nationality, but two hundred citizens of the Serb-Croat-Slovene State; there are over one hundred and twenty Hungarian citizens, but no foreign student of Hungarian nationality. And these discrepancies cannot be accounted for altogether by the presence of over one thousand two hundred Jewish students in Prague.

"These foreign students are naturally inclined to form distinct colonies and live chiefly in their own national groups; but the tendency of students to divide up into groups knowing nothing of each other spreads all through University life, even where it is unaffected by considerations of nationality. One reason for this is the Faculty system, which works on a different plan from that with which we are familiar in England. The University buildings are, as in London, dotted haphazard all over the town; but instead of being colleges where students of different faculties work and play and get to know each other, these buildings are grouped faculties; the Faculty of Science and Medicine on Vinohrady Hill, the Faculty of Philosophy (or most of it, for its new home is not yet completed) down by the river, and so on. There is nothing corresponding to colleges as we know them, or to the inter-faculty intercourse of college life: similarly there is none of inter-collegiate intercourse within one faculty. Each faculty remains a little isolated world by itself and University social life and athletics as we

[6] This figure includes, besides the students of the four Universities —Czech, German, Russian and Ukrainian—and the Hus Theological Seminary, those of the Czech and German Polytechnics, the Academy of Arts and the Conservatoire of Music.

understand them being quite unknown, there are no opportunities for intercourse.

"These divisions are increased and aggravated by economic conditions. Large numbers of students are dependent for material support on some special body, national, political or religious. There are German hostels for German students only, Catholic hostels for Catholic students only, hostels run by the Agrarian party for students who have connections with that party only. Sometimes you get a further sub-division, such as a hostel run only for students who are German Catholics. Although a certain amount of mixing of students from different faculties necessarily takes place in these various hostels, it is less than one would expect. A hostel provides room and food, but very little beyond in the way of opportunities for social life, so that students tend rather to foregather with the little group whom they know from the lecture room than to make fresh acquaintances. Furthermore, Prague is a large city, and the buildings of the various faculties, as we have pointed out, are concentrated in separate groups at some distance from each other: students as a rule have not much to spare for tram fares, and so try to gain admittance to a hostel as near as possible to their headquarters. One of the very few satisfactory women's hostels, Budec, is situated close to the Faculty of Medicine, and a great number of the residents are medical students.

"Budec is the only really international hostel in Prague: it discriminates neither against foreigners nor against non-students. The bulk of the residents are students, because Budec has specially low rates for students whose incomes are small, and in Prague large numbers of the students have to manage on incredibly small means. This seems to result in an atmosphere of extraordinary friendliness and generosity. The top floor of Budec, where fifteen or twenty students receive free lodging as part of their State-awarded scholarship, is one of the friendliest places in the world. With the unbelievable minimum of possessions, these girls always have enough to lend or give. They wear each other's clothes, use each other's books and tea-cup; one alarm clock goes the rounds of those who are in the last extremity before an examination. If anyone has had a parcel from home or a windfall of any sort, there is a party: but there are always parties, windfall or no, and the parties are always jolly, even when the entertainment is of the most meagre. Usually there is one person towards whose room you all gravitate at tea-time because it is the jolliest there and if you have anything to contribute to the feast you bring it with you.

"Wider in scope and more deliberately international in conception is Studentsky Domov. This is a student centre which aims at supplying the opportunity for social intercourse between the students of all nationalities and faculties which University life would otherwise lack.

For this reason it differs from Akademicky Dum, which with membership open to foreigners, is quite Czech in management. Studentsky Domov aims at being as international as possible in both. Its membership includes twenty-seven nationalities: the five students elected to the Committee of Management are Czech, German, Slovak, Jewish and Ukrainian. The staff includes Czech, American, Russian, Swiss, German, Ukrainian and Jugoslav. Its social activities range from Czech-Hungarian acquaintance evenings to an English-speaking social club with a membership of twelve nationalities. Its canteen serves two thousand students daily with large portions of excellently cooked food at amazingly small cost, and its tea is the best in Prague.

"This canteen, together with the laundry, bathrooms and large study room are especially important in view of the poverty of a large number of the students. Forty per cent. of the students in Prague have a regular income of less than the recognised minimum of five hundred crowns (just over three pounds) a month: thirty-eight per cent. are freed from fees on account of poverty; nearly half live in rooms costing less than one hundred and fifty crowns (about eighteen shillings) a month, which means that they are badly lit, unheated, and without bathing facilities. The average student must feed and clothe himself on three hundred and fifty crowns (about two pounds four shillings) a month. Government support in maintenance and free tuition is needed and is widely given. The two and a half million crowns (fifteen thousand six hundred and twenty-five pounds) spent yearly by the Ministry of Education on scholarships to student citizens of the Republic is less than half the total sum spent on their maintenance; while the support given to hundreds of emigre students—Russian, Ukrainian and Armenian—brings the total sum spent by the Government on the maintenance of students up to one per cent. of the entire net budget (figures for 1926)."[6]

It is interesting to compare the above figures with the cost of living in English Universities. The following figures are given by E. A. G. Caroe.

[6] Another independent observer says:

"Do not despise manual labour. Two years ago I visited a large hostel in Prague (Czechoslovakia) for university students of limited financial means, built entirely by manual labour of the students themselves. When the public crowded to see this curious sight of university students employed in manual labour, a tax for the show was collected from them, and the funds for the building were thus augmented. The students there seemed to lead a very frugal life. I found several of them with no upper garment at all, and their rooms were very simple in appearance."—S. Jesudason: *The Collegian*, Feb. 24, 1930.

"Since the investigation was planned with the Cambridge estimates in mind, it may be as well to begin with a brief summary of the Cambridge figures. The estimates are given on three scales. The "lower scale" represents the irreducible minimum, and it is only by the practice of the strictest economy that a student could hope to live upon so little: the 'average' may perhaps represent what the ordinary careful student would spend; the 'higher scale' though liberal, does not allow for anything of the nature of extravagant or even luxurious, expenditure." The following table summarises the estimates of total expenditure made on these scales:

	Lower Scale.	Average.	Higher Scale.
	£. s.	£. s.	£. s.
Initial expenses	42 10	66 10	114 10
Expenses that recur annually ...	161 5	236 15	316 15
Possible Additions' (initial) ...	0 15	2 15	5 0
Possible Additions (annual) ...	35 0	50 0	76 0
Occasional expenses	14 0	14 0	14 0

I cannot conclude this chapter better than by quoting a few lines from Emerson's *The Man of Letters*:

"Our industrial skill, arts ministering to convenience and luxury, have made life expensive, and therefore greedy, careful, anxious; have turned the eyes downward to the earth, not upward to thought.

"So let his (scholar's) habits be formed, and all his economies heroic; no spoiled child, no drone, no epicure, but a stoic, formidable, athletic, knowing how to be poor, loving labour, and not flogging his youthful wit with tobacco and wine; treasuring his youth. I wish the youth to be an armed and complete man; no helpless angel to be slapped in the face, but a man dipped in the Styx of human experience, and made invulnerable so,—self-helping. A redeeming trait of the Sophists of Athens, Hippias and Gorgias, is that they made their own clothes and shoes. Learn to harness a horse, to row a boat, to camp down in the woods, to cook your supper. I chanced lately to be at West Point, and, after attending the examination in scientific classes, I went into the barracks. The chamber was in perfect order; the mattress on the iron-camp-bed rolled up, as if ready for removal. I asked the first Cadet, 'Who makes your bed?' 'I do.' 'Who fetches your water?' 'I do.' 'Who blacks your shoes?' 'I do.' It was so in every room.

Possible additions vary with the course of the study. The estimates given here are for medical students.

These are first steps to power. Learn of Samuel Johnson or David Hume, that it is a primary duty of the man of letters to secure his independence."

What is sauce for the gander is by no means sauce for the goose. Because Oxford and Cambridge have got the residential system, it does not necessarily follow it is good for India.

Some of our Rajas, Maharajas, zemindars and barristers and highly paid civil servants under the obsession of slave mentality have a sort of innate contempt for "home" education. They send their sons of immature age to Eton, Harrow and thence to Cambridge or Oxford. Tragic consequences have often followed—these lads generally go astray and cut sorry figures in after life. They slavishly ape the dark features of their aristocratic comrades but fail to imbibe the noble traits and instincts of British youth.

III—Residential University.

A few years ago there was a proposal for the removal of the Calcutta University to the suburbs. Below are cited a few extracts from the evidences of those who are competent to speak with authority; incidentally they point out the drawbacks inherent in the residential system (*vide Sadler Commission Report*, xii).

No wonder brought up under such easy going *milieu* they part with self-reliance and when they enter life they are unable to fight its battle because they are hopelessly incompetent to earn their livelihood.[*]

"Moreover, the students whose families live in Calcutta should not be isolated from their home environments. The greatest drawback of the residential system is that the students are kept under artificial conditions, away from the every-day world, and thus cannot acquire the worldly experience which now stands them in good stead when they enter some profession.

"It is forgotten that the average income of an Indian is £1-16s. while that of an Englishman is £42 per annum. Students brought up

[*] The hostels under the Allahabad University also equally encourage luxurious habits.

in the artificial and luxurious style of the hostels cannot adapt themselves to their home life in the villages. Under the residential system the cost per student, including college fees, is not less than Rs. 35 per month,* which very few guardians can afford to spare. I have been lately reading Sir Henry Roscoe's 'Memoirs', as also his 'Life', by Sir Edward Thorpe. It is well-known that Roscoe played a leading part in founding the Universities of Manchester and Leeds, and the Universities of Birmingham, Sheffield, and Liverpool have been modelled upon these. Roscoe is full of sneers and biting sarcasm against the artificial and highly expensive life as represented in Oxford and Cambridge. The following two extracts from Thorpe's *Life of Roscoe* will make the points clear :

> 'It was, he said, to be 'The University of the Busy' as distinguished from the old Universities of Oxford and Cambridge—'The Universities of the Wealthy.' He pointed to the existence of the Scottish Universities, and explained what their influence had been for generations back on the middle and poorer classes of their country. Was not Lancashire, with its many populous manufacturing towns, as fully entitled to the advantages of a university as the cities over the border? The time had passed for imagining that Oxford and Cambridge, rich and powerful though they were, could do all that England legitimately required in the way of the highest academic culture.
>
> 'Moreover, it must be admitted, there is a great deal in the genius loci. That spirit had succeeded in developing John Owens foundation into a splendid institution suited to the local requirements. They in Manchester knew what the busy North wanted, but they were not quite so sure that the Dons of Oxford and Cambridge knew it as well as they themselves did. They asked to be allowed to work out their own salvation in their own way.'

"I have altogether lived seven years in England and Scotland, and lately as a delegate of the University of Calcutta in the Conferences of the Universities of the Empire I had an opportunity of visiting many British Universities. The residential system has not been popular anywhere. What has been given up as impracticable in rich England, should not be foisted upon poor India. Sir Edward Thorpe, speaking on Roscoe's efforts in localising the Owens College in the heart of Manchester says : 'It was not used for it to set itself athwart the economical condition of the community.' "—P. C. Ray, p. 330.

* This was in 1915; at present it is Rs. 45 to Rs. 50.

"Let the Bengali boy and girl grow up at home under the refreshing 'greenth' of her waving corn-fields and crowned palm-groves, but after the village *pathshala* and village school let the growing youth stand facing the crowded vistas of civic life in the heart of humanity. Not in cloistral segregation, but in coming out of the mediæval cloister lies India's salvation, whatever may be the saving power of ruralisation to-day in the West. Not expansion, but contraction of the University and its life and span will be the immediate result of this removal to the suburbs.

"And how shall we get the active co-operation of business men on our Faculties of commerce and technology in such a scheme of segregation? or the intimate contact with corresponding firms, banks, and factories? or in those filled-up swamps or riverside flats that odour of jute or hides, of alkali and fat, which is the very breath in the countenance of industry and commerce!

"And this is not all. The metropolis of the Middle East will continue to grow her own intellectual centres in the heart of her business and her population,—her Sahitya Parishad and her Sahitya Sabha, her Ram Mohan Library, and her Chaitanya Library, ... her Victoria Memorial, her various clubs and societies, literary, mathematical, philosophical, not to mention the halls of her three Brahmo-Samajes, her Theosophical Society, her Ramkrishna Mission, and her Devalaya. A greater college round the colleges, these institutions in their ensemble create a social atmosphere of Western-Eastern culture, a *milieu* which socialises that culture, a living image without which the world of the school or college teaching would remain to the Indian student a distant and airy abstraction."—B. N. Seal, p. 333.

"I am not sure that a secluded university is the best type of university. It is better for students to live and study in the natural environment than to enjoy artificial peace. We do not want a 'hermit' university revelling in the peace of seclusion but a 'civic' university which is likely to develop civic consciousness and personality."—N. Sen-Gupta, p. 335.

"As regards the growth of corporate university life I do not see why it should not grow under the existing system. Simply confining all the students in a hostel should not lead to the creation of much solidarity of interest or of feeling.

"Further, such a step will deprive a very large number of our students of the opportunity of residing with their parents. We all know how very benign this parental influence is. I would, however, welcome the establishment of a large residential college in the suburbs."—N. R. Sircar, p. 337.

"I do not favour the proposal to transplant the whole University, with its colleges, to an outside site : the result would be the detachment of higher education from the general life of the province, an arrangement that would make strongly for artificiality. I prefer to contemplate colleges in numerous localities, feeling themselves in touch with local needs and aspirations. Having regard to the importance of domestic relations in the social organisation I do not think the development of a corporate university life entirely apart from these either possible or desirable."—W. C. Wordsworth, p. 339.

IV—The Gurukula.

As a protest against the expensive habits and materialistic tendencies imbibed in the modern residential hostels as described above, the *Gurukula* was established mainly through the efforts of Munshi Ram (afterwards Swami Shraddhananda).

"It is situated on the Upper Ganges, within sight of the snow-covered Himalayas and surrounded by the primeval forest. Whilst the Dayananda College aimed at preparing its pupils for the Anglo-Indian Universities, the Gurukula cut itself altogether free from that aim. Its purpose is knowledge of the Vedas and the formation of character on the basis of the Vedas. The ancient manly and life-giving culture was to be revived, the ideals of abstinence and asceticism were to be cultivated, the ancient philosophy to be rejuvenated ; early Indian history was to be studied and a new Hindu literature created, absorbing what is best in Western culture. Boys enter this school at the age of seven and stay till they are twenty-four. On entering they take a vow of poverty, chastity, and obedience for a term of sixteen years, and renew it after ten years. During the whole period they never leave the school. They may not even visit their homes unless in exceptional circumstances, and their parents may see them at most once a month. Thus the school has its own life, shut off from all outside influences ; it is a pedagogic world in which the boy passes all his days. Teachers and pupils feel themselves bound by a family tie and mutual attachment. Social consciousness and a spirit of comradeship are awakened. During the first seven school years the boys learn Sanskrit,

and the Vedas ; not till they are fourteen do they begin to come in contact with the English language, the modern sciences, and Western civilisation, and then it is through the medium of their mother tongue. Strict discipline, bodily hardihood, and the observance of daily religious ritual are intended to create a new type of manliness."

But the unfortunate thing is that the Vedas must be interpreted according to Dayananda. The Veda means knowledge and is a Divine Revelation and as such it is infallible. According to Dayananda it contains everything worth knowing ; even the most recent discoveries of modern science were anticipated in it.

Boys cut off not only from parental influence but also from the world *as it is* during the most teachable and impressionable period of their lives naturally find themselves hopelessly out of touch with their environments, brought up in "cloistered segregation and in this hermit University," fed on notions as delineated above. When they come out they flounder in the dark as it were. It is a case of jumping from the frying pan into the fire.

CHAPTER XVIII.

Drain of the Wealth of the Land due to the Adoption and Aping of European Standard of Living.

"We must do our best to form a class of persons Indian in blood and colour but English in taste, in opinion and intellect."—Macaulay (1833).

Up to this point I have confined myself to the economic drain due to Bengal's political subjection—the drain over which she has no control. But thanks to the rapidity of communication with the distant provinces of India, and Bengal's failure to adjust herself to the altered conditions brought about thereby her land has been the happy hunting ground for the hardy adventurers from those parts. Elsewhere I have shown on a rough calculation that at least Rs. 120 crores are annually drained out of Bengal by the non-Bengalis (Vol. I, p. 440).

Nor is this all. Of all the peoples of India the Bengali has been the most imitative. As far as the aping and adoption of the customs and costumes of the dominant race are concerned the Bengali can give points to his fellow-countrymen in the sister provinces. When the first Bengali was called to the bar and began his practice at the Calcutta High Court he fixed his residence in the Chowringhee quarter (*i.e.* "the West End"), furnished his drawing room *à l'Européenne,* and adopted the dress and the manners of his English master to a nicety. His successors imitated his example with alacrity, nay improved upon it. What the High Court Bar does to-day, the whole of educated Bengal does tomorrow. It is as much looked up to as Paris was by the fashionable world in the time of Charles II and James II.[1]

[1] Regarding this sort of slavish imitation of fashion compare: "Her (France's) authority was supreme in all matter of good breeding, from a duel to minuet. She determined how a gentleman's coat must be cut, how long his peruke must be, whether his heels must be high or low, and whether the lace on his hat must be broad or narrow.

I—Perils in a Cup of Tea.

The result has been disastrous from the economic point of view. The bar-library is the emporium of fashion, and it is always found that fashion filters down from the more "refined" to the less "refined" and ultimately to the commoners. The masses eagerly follow in the wake of the *bhadralogs*. Bengal is a home of tobacco, and some of its best qualities are extensively cultivated in Rungpur and Cooch Behar. Imported cigarettes of foreign manufacture are, however, flooding the market and the demand for these is going up by leaps and bounds. The beggar in the streets and the peasant ploughing his field will disdain to smoke from the *hooka*. The indigenous tobacco is being rapidly supplanted. Following in the wake of cigar-smoking another vicious habit has begun to permeate not only the upper educated classes but also the lower orders and threatens to spread even among the masses. Tea drinking was almost unknown in Bengal. But Lord Curzon, the high priest of imperialism and exploitation, levied a tea-cess, the proceeds of which were made over to the European Tea Association. Being amply provided with funds it commenced its propaganda operations by opening tea-shops in all the prominent places in the Indian quarters of Calcutta and distributing cups of tea and also pice-packets gratis. The "Educated" Bengali ever on the alert for imitating European ways, eagerly swallowed the bait. He has already become a confirmed tea-drinker and the habit is spreading like wild fire among the coolies, carters and labourers in general. The Tea Association, having captured Calcutta and emboldened by its phenomenal success, has begun propaganda on a large scale in the Provincial towns and big railway terminals with immense success. A cup of tea—"the cup that cheers,

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. . . At several courts princes and nobles spoke it [French] more accurately and politely than their mother tongue. . . . Great masters of our language, in their most dignified compositions, affected to use French words, when English words, quite as expressive and sonorous, were at hand".—Macaulay : *History of England*.

but not inebriates"—may be refreshing in cold countries but there is absolutely no need for it in warm climates. A European, when he drinks tea has at any rate substantial food in his stomach. The ill-paid and badly nourished clerk in Calcutta or Bombay feels fatigue after a couple of hours' hard work at the desk and drinks a cup of tea. He, momentarily, feels refreshed and goes on with his drudgery and again follows with another cup and in this way he often drinks half-a-dozen cups. He urges in support of this habit that it kills appetite and therefore he has no need for nourishing food. I am as much concerned here with the medical or physiological aspects of the question as with its economic bearing ; 96 per cent. of the tea produced in Bengal comes from the European gardens and barely 4 per cent. from the Indian. The tea-drinking habit is spreading fast among the masses and, if it goes on at this rate, in the course of the next 25 years the population of Bengal being taken at 50 millions, the European planters may safely count upon a yearly sale of 50 millions rupees worth of tea in Bengal alone. One rupee per head per annum is only a moderate estimate and represents so much wealth drained out of the land. Some deductions however, should be made from the actual drain involved in the shape of the wages of the miserably-paid coolies who are again non-Bengalis. Then again lying propaganda on an extensive scale is resorted to in railway platforms and other public places to the effect that tea is preventive of malaria.

It is necessary to quote here expert medical opinion on the deleterious effects of tea and coffee drinking.

"In Bengal, from time immemorial, everyman, rich or poor, used to take his morning meal of *Gur-Chhola* (molasses and gram) or *Ada-Chhola* (ginger and gram) or *Chhola* and *Muri* (fried rice and gram) or *phen-bhat* (rice with the water after boiling) and milk, as the case may be, and as dietetic prescriptions they can hardly be improved upon either in general balance or in vitamin content. The rich used to supplement such dietary by the addition of butter and sugar candy and occasionally *Chhana* (curded milk), making an almost ideal meal.

"Nearly 30 years ago, the Indian Tea Association started, in the interests of trade, an intensive campaign, for the introduction of tea into India, as a dietary of the people. As the vast majority of Indians

are too poor to afford both their customary food and tea it meant the substitution of their food by tea altogether. While the association moved heaven and earth in pursuit of their sordid interest to induce the people to fall off from their immemorial custom, not a little finger was raised, even by the Sanitary Department, to warn the unsuspecting people, that a decoction of tea, but for the presence of traces of milk of doubtful quality, possesses no dietetic value whatsoever. This selfish onslaught of the Indian Tea Association on the citadel of custom has continued, without let or hindrance, from any quarter, for thirty solid years, with the result that the Association have succeeded in their none too praiseworthy attempt, to strangle the salutary and universal dietetic custom of the country and undermine the health of a guileless people."—N. R. Sen Gupta, M.D.

"Tea and coffee stimulate the heart and nervous system . . . . . Even properly made tea, if taken in large quantities (and in some individuals in quite small amounts), may lead to indigestion, general nervousness, palpitation, giddiness, and insomnia. It necessarily does harm if taken instead of food, or to mask the effects of fatigue, and so enable a man to go on working when his brain really needs rest." —J. Walter Carr, M.D., F.R.C.S., London.

Continual tea-drinking is pernicious ; the desire for alcohol is a natural craving, and tobacco is a mild and sometimes helpful sedative, according to Dr. W. E. Dixon, of Cambridge, who addressed the British Medical Association at Winnipeg recently on "Drug Addiction." His views on the comparative values of the stimulants may be summarised as follows :

"One of the causes leading to neurosis, he said, was the universal and regular consumption of caffeine, the commonest, though it might be the least harmful, of drug addictions.

"Tea and coffee were the chief caffeine beverages. One good cup of tea usually contained more than a grain of caffeine, so that the average tea drinker consumed 5 to 8 grains of caffeine daily, a not inconsiderable amount.

"The continual use of caffeine produced mental irritability and excitability and sometimes dizziness and digestive troubles, while reflexes were always exaggerated. All these effects could be produced by 6 to 7 grains daily.

"The introduction of tea throughout the country of late years has caused so much damage to the digestive power of the people of our upper and middle classes, that tea-dyspepsia has become quite an endemic disease in our cities and towns. If tea be taken in a concentrated form like soup, containing a large amount of tannin and made

rich with plenty of milk, and sugar in five or six large cupfuls a day, it produces after a time acidity, wind colic and costiveness. Sleeplessness and loss of appetite follow. At last some dilation of the stomach and palpitation of the heart."

Dr. John Fisher writes that caffeine, the active principle of tea, has a "cumulative effect and acts somewhat similarly to cocaine stimulating at first, but, like other drugs with an inevitable and depressing reaction, demanding further stimulants, and leaving the consumer worse than he was before. In this way, tea is the cause of much depression, discontent, unrest and craving for excitement. It also creates indigestion, insomnia, anæmia, constipation, and often leads up to alcohol drug-taking, and even insanity. Coffee is as bad; cocoa not much better."

Dr. J. Batty Tuke says: "It is an open question whether the whisky bottle, or the teapot exercises the most baneful influence."

II—The Automobiles.

Motor cars, again, are rapidly coming into vogue, so much so that if one wishes to be regarded as somebody and respectable he must possess one or more. A lawyer or a medical man who would start in his career must have a motor-car, otherwise his clients or his patients will fight shy of him. (Cf. Vol. I. p. 17).

Not only the Zemindar, over head and ears in debt, but even the professor drawing rupees five hundred per month or less must indulge in this luxury. The importers of motors and automobiles are plying a roaring trade. In America it is true that every fifth or third man has a car, but then in the case of the Americans time is money. Moreover, every constituent part of it is made in America. The petrol consumed is pumped out of her own wells or in wells controlled by her capitalists. The labour is American. Not only every farthing the manufacturer spends remains in the land but he often earns fabulous wealth by sending his surplus produce into other lands. The same remarks apply to England. If America has her Ford, England has her Morris. If America has her oil-king Rockfeller, England has her oil-fields in Assam, Burma and the Persian Coast. England in addition has almost the monopoly of the India-rubber. But when the Indian buys and uses a motor car, all the money he spends for it goes out of his land,

including the daily expenses involved in the consumption of the petrol. I can well understand the supreme need of the European or Marwari businessman using a car, for he has often to traverse 25, 50 or it may be a 100 miles a day. The jute broker is now at Kakinara or Shamnagar and then off to Budge-Budge. But the Bengali judge or lawyer who often lives within a radius of a mile or two of the High Court cannot urge that a motor car is a necessity to him. If he drove in a carriage it would take barely 10 to 15 minutes to reach his destination that he could reach in a motor car in 3 to 5 minutes. From ten in the morning till half past five in the afternoon his car stays in the garage. The saving of a few minutes' time makes no material difference. But he sets a pernicious example to his less-favoured brethren who, to keep up appearances, often live beyond their means and run into debt.

Motor buses have begun to ply in the streets of Calcutta. They are also flooding the district towns and the interior of the country where there is not even a properly metalled road.

The district board roads are *kutcha* (non-metalled) and the roads in the district towns are mere apologies for *pucca* (metalled) roads. During the dry season the clouds of dust constantly kicked up by motor buses almost suffocate the passers-by, as also the permanent residents of these towns. From early morning till 10 o'clock at night people must submit martyr-like to this nuisance, which also causes injury to the pulmonary organs.

There is a saying in Bengali that the very sight of a horse in harness makes one lame. The poor clerk, who drudges like a galley-slave and can barely make two ends meet, refuses to walk now-a-days from Shambazar to the Secretariat. As soon as he gets to the nearest street-corner he jumps into the bus and pays 1*a*. 3*p*. as fare. Even on his return journey in the evening when he is in no hurry and can afford to walk back leisurely he gladly spends an additional anna. When it is borne in mind that this ill-paid quill-driver lives in dingy ill-ventilated rooms, and his wife and children suffer from malnutrition, it needs no further comments to explain what an

indulgence this modern luxury really comes to. But the mischief does not end here. Formerly it was quite the custom for ordinary village folks, including the gentry, to walk on foot[2] four to six miles at a stretch, but as motor-buses are now piercing and tapping the length and breadth of Bengal, even the peasants, who in most parts of Bengal sit idle for nine months in the year and whose sole subsistence depends upon the *aman* rice crop, refuse to walk much.

They go in also for every article of luxury but not of utility. If there is a bumper crop with good price ruling in the market, they get cash and recklessly squander it on bicycles, gramophones, handkerchief of imported artificial silk, on gaudy tinsel and gewgaws. The peasant, however grown-up he may be, behaves like a child when these fancy articles catch his sight. By July and August, when his resources begin to get exhausted his granary becomes empty. Everything the peasant buys is in exchange for the produce of the land; he has no subsidiary occupation for the idle months and as his stock of food grains barely lasts for 3 months he borrows at exorbitant rates of interests from his *mahajan* (money lender) in order to tide over the rest of the year. His bicycles, gramophones and harmoniums find their way to the pawn-brokers. Nor is this all. While he goes in for these articles of luxury, his cattle are reduced to skeletons for want of fodder, his

[2] *Cf.* "The civilised man built a coach but forgot the use of limbs." —Emerson.

Cf. also: "We have to realize that we can never remain really well unless we take regular and sufficient outdoor exercise.

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"Undoubtedly one of the most difficult problems of modern life in large cities is how to get enough exercise. First of all we must realize that a certain amount of daily exercise is essential.

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"For the vast majority walking is the only form of daily exercise available.

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"Modern facilities for rapid transit by tubes, motors, etc., have many compensatory drawbacks, especially if they induce people to give up walking."—J. Walter Carr, M.D.

children get emaciated as they are fed mainly on gruel, cow's milk even in small doses seldom being a part of their dietary. Marshall notices this sort of imitativeness among the English labourers and the price they have to pay for appearing as better folks. It is a tragedy—this contact of a primitive people with simple habits with highly progressive and advanced races.

The Maori of New Zealand is disappearing off the earth because he has been brought all of a sudden into close touch with an environment to which he cannot adapt himself. The middle classes in Bengal though they may be "cultured" have hopelessly failed to keep abreast of the mercantile or industrial developments ; their average income is barely one-thirtieth of that of an American or Englishman of the same social rank, and when they feverishly rush after the amenities of modern civilized life they court their doom.[3]

They have acquired a morbid craze for the absorption of European "civilization" but are as helpless as the Zulu or the Red Indian, or the Santhal as far as the manufacture of finished goods out of their own abundant supply of raw materials is concerned. The peasantry, imitating their betters, bring ruin and starvation on their families. Even in industrially advanced England the working classes under the spell of democracy have caught the rage for things that are "pure nonsense" and are fast losing the sense of "responsibility and thrift." They too are mad after imitating their betters and enjoying the good things of life.

"The demand for prime necessities such as food and normal clothing has decreased, in favour of things to satisfy desires that are obviously of secondary importance, even pure nonsense. Essentials are being systematically relegated to the back-ground, while everything for the leisure hours is much in demand. Luxury, or at any rate imitation luxury, is popular—everyone must have it.

[3] Of the annual imports of over Rs. 230 crores the following items contribute mostly to drain away our wealth; cotton-goods, 60 to 65 crores; artificial silk, 4 crores; sugar, 18 crores; metals and their manufactures, 23 crores; motor vehicles, 5 crores; liquor, 3 crores; cigarettes, 2 crores. During the last 4 or 5 years of slump, the imports have considerably decreased.

"Meanwhile, a host of new expenses figure in every one's budget, expenses suggested by industries which seem almost to have sprung out of the blue, for twenty years ago they did not even exist. The world's consumption is now largely made up of an endless demand for automobiles, gramophones, radios, electrical gadgets, telephones, cinematographs, cameras, etc. This is evidently one by-product of the spread of democracy among the masses, who, weary of restraint, are at last insisting on having their share in the good things of life. By diminishing the general sense of responsibility and thrift, and by suddenly revealing the profound instability of our age, the War hastened this evolution of humanity towards immediate gratification. Asia and Africa are rapidly following in the wake of America and Europe in this respect."—Andre Siegfried: *England's Crisis*. pp. 95-96.

It has now become customary for the High Court British Judges and successful barristers to avail themselves of the long vacation extending from the last week of September to the middle of November to proceed home. Our Bengali judges and lions of the bar must follow suit and go 'home'. An Englishman when he secures a berth in the Imperial Mail as also in the P. and O. knows full well that the money he spends on this account returns to him or his own country as the shareholders of the railway and steamer companies are British ; but the Bengali forgets that every farthing he spends this way goes out of his pocket and his own land. There are scores of salubrious retreats in India where one could easily recuperate his health. But the Bengali judge or barrister or the Civilian must imitate his betters and fulfil the prophecy of Macaulay uttered a century ago and which I have quoted at the top of this chapter. While they squander money like water on such occasions they are known to show a long and weary face when approached for a donation, say for purposes of education. They coolly forget that they owe any obligation to the land of their birth. They evidently think that they have been sent to this world to be the chosen instruments for the draining away of the wealth of the country and be active helpers of exploitation. The judge, the practising lawyer, the doctor, the school master, the clerk constituting the educated classes—one and all—are parasites, living ultimately on the produce of the land. None of them creates wealth. They have been quick to mimic the

externals of European life but the energy, pluck, indomitable perseverance, punctuality and method—qualities which really count and go to the making of a nation they are hopelessly deficient in. All the same, in social matters they are as far behind as their less favoured brethren and strictly conform to the orthodox style, and hesitate to deviate an inch from the age-long customs.[4]

I cannot conclude better than with the thoughtful remarks of a Bengali writer:

"This approximation to the European style of living can hardly be called 'elevation'. In many, I may say most, respects, the change is decidedly for the worse. In a climate where minimum of clothing conformably to the indigenous standard of decency is conducive to health for the greater portion of the year, covering oneself up from head to foot after the European style cannot but be prejudicial to health. The same remark applied generally to the change of taste in regard to eating, drinking and smoking, especially in regard to the alarming spread of tea-drinking and of cigarette smoking.

"But whether 'elevation' or not, whether for good or for bad, the approximation of the standard of living of one of the poorest communities of the world to that of one of the richest is suicidal. True, a very small section of our community composed of some artisans, state servants, lawyers etc. have more money than before. But they too are generally impoverished.

"Impoverishment is a comparative term. If one having comparatively more money than before has yet more wants, he is certainly poorer. I do not think I am exaggerating when I say that the great majority of our middle class have been impoverished in this sense. The candle burns at both ends. Their resources are exhausted on the one hand by the inordinate enhancement of the prices of indigenous necessaries, and on the other by the so called elevation of the standard of living which is enlarging their wants. Even incomes which formerly would have been regarded as opulence are now hardly deemed to be bare competence. While milk and the various preparations of milk which form our principal articles of nutrition suited to the climate have become so very dear that the great majority of our middle class cannot afford to get them in sufficient quantity for bare subsistence, they have to spend comparatively large sums upon the gratification of the new

[4] Cf. "The growth of European habits has been remarkably accelerated among these [Red] Indians by the mixed race which has sprung up."—De Toquevilie: *Democracy in America*, Vol. I. p. 411.

tastes which have sprung up for clothing, shoes, socks etc., and for amusements and games, such as theatrical performances, circuses, cinemas, billiards, football, tennis etc., which have superseded the much less expensive indigenous amusements and games. For, the average man blindly follows the prevailing fashion and with him show counts for more than substance, and the ornamental prevails over the useful." —P. N. Bose : *Swaraj—Cultural and Political*, pp. 123-125.

"In that part of India", the Commons' Committee [1832] asked the witness, Holt Mackenzie, "where the greatest number of British residents are found, has there been any increase among the natives in the indulgence of English tastes, fashions, and habits?"

"Judging from Calcutta", replied Holt Mackenzie, "there has been, I think, a marked tendency among the natives to indulge in English luxuries; they have well-furnished houses, many wear watches, they are fond of carriages, and are understood to drink wines."

"A smile of grim satisfaction must have overspread the faces of the grave and reverend commoners of England on obtaining this significant evidence of the spread of Western civilization in India!"[5]

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[5] R. C. Dutt : *Economic History of British India.*

CHAPTER XIX.

Scientific Specialization and Narrow Outlook—Failure in Life.

"The man of science is fond of glory and vain
An eye well practised in nature but a spirit bounded and poor."
—Tennyson.

Nothing like leather cries the shoemaker. When Li Hung Chang made a tour of Europe he was asked if the European cities were not cleaner and better laid out than, say, Peking. The Chinese statesman looked about and replied that might be so but he missed very much the unsavoury odours of his native city. There is a Bengali story which relates how a fishwoman was once caught hold of and treated sumptuously and allowed to sleep in a soft bed strewn with roses. She felt uneasy because of the absence of the fishy atmosphere which she was used to inhale.[1]

These tales prove how much man is the slave of habit, and habit soon grows to be a second nature. To the bacteriologist plodding over his microscope and ultramicroscope intent on discovering new bacilli and microbes, and to the astronomer busy with his monster telescope sweeping the firmament night after night ever on the alert for the discovery of a new heavenly body there is again no other enjoyment in life.

In these days when intense specialization is the order of the day it is necessary to call a halt and inquire into its effect in the mind of the specialist. Forty-four years ago Oliver Wendell Holmes in his inimitable way thus put forth the limitations of the man who devotes himself to one branch of study only to the exclusion of others:

[1] *Cf.* "When Louis Pasteur as a lad of fifteen was sent to Paris for education he got home-sick and longed to be back to his parents. Few people would choose to live near a tan-yard, but to Louis all the scents and sights of Paris could not make up for the lack of its familiar odour. 'If I could only get a whiff of the tannery yard, I feel I should be cured.' "

"We have only to look over the lists of the faculties and teachers of our Universities to see the sub-division of labour carried out as never before. The movement is irresistible, it brings with it exactness, exhaustive knowledge, a narrow but complete self-satisfaction, with such accompanying faults as pedantry, triviality, and the kind of partial blindness which belongs to intellectual myopia. The specialist is idealized almost into sublimity in Browning's 'Burial of the Grammarian'. We never need fear that he will undervalue himself. To be the supreme authority on anything is a satisfaction to self-love next door to the precious delusions of dementia. I have never pictured a character more contented with himself than the 'Scarabee' of this story". Off his own branch, the specialist is often as helpless and ignorant as a new born babe. Hence the necessity for a broad culture and wide outlook. As Lord Acton points out:

"Apart from what is technical, method is only the reduplication of common sense, and is best acquired by observing its use by ablest man in every variety of intellectual employment. Bentham acknowledged that he learned less from his own profession than from writers like Linnaeous and Cullen; and Brougham advised the student of law to begin with Dante. Liebig described his organic chemistry as an application of ideas found in Mill's Logic, and a distinguished physician, not to be named lest he should overhear me, read three books to enlarge his medical mind; and they were Gibbon, Grote and Mill. He goes on to say, 'An educated man cannot become so on one study alone, but must be brought under the influence of natural, civil, and moral modes of thoughts.'

* * * * * *

Faraday declares that "in knowledge, that man only is to be condemned and despised who is not in a state of transition," *i.e.* who is hide-bound by conventionalities and a slave to tradi-

tion and stereotyped mode of thought and cannot keep pace with the time-spirit.[2]

It is therefore necessary that the man of science should widen his outlook and range of knowledge by a study of subjects other than his own. That exclusive attention to one branch and being immersed in it atrophies and stunts the growth and development of other faculties is proved in the case of Darwin.

In his *Autobiography* he says: "I have said that in one respect my mind has changed during the last twenty or thirty years. Up to the age of thirty, or beyond it, poetry of many kinds, such as the works of Milton, Gray, Byron, Wordsworth, Coleridge and Shelly, gave me great pleasure, and even as a schoolboy I took intense delight in Shakespeare, especially in the historical plays. I have also said that formerly pictures gave me considerable, and music very great delight. But now for many years I cannot endure to read a line of poetry. I have tried lately to read Shakespeare, and found it so intolerably dull that it nauseated me. I have also almost lost my taste for pictures or music. . . . . This envious and lamentable loss of the higher aesthetic tastes is all the odder, as books on history, biographies and travels . . . and essays on all sorts of subjects interest me as much as ever they did. My mind seems to have become a kind of machine for grinding general laws out of large collections of facts, but why this should have caused the atrophy of that part of the brain alone, on which the higher tastes depend, I cannot conceive . . . The loss of these tastes is a loss of happiness, and may possibly be injurious to the intellect, and more probably to the moral character, by enfeebling the emotional part of our nature."

A writer who has evidently thought much on the subject has some apposite observations to make:

"It is now six years that, addressing the Physiological Section of the British Association for the Advancement of Science which met at Glasgow in 1928, the president of the

[2] The Mussolini of to-day is an entirely different man from the Mussolini of the March on Rome. "He has lost his belief in the omnipotence of formulas and dogmas. Then he believed more in miracles, now he relies more on hard work. Then he had the conviction that he had the power to sweep away all obstacles merely by telepathy; now he knows that detail work is the secret of the statesman's greatness."– Lengyel: *Hitler*, p. 228.

section, Professor C. A. Lovatt Evans, observed: 'The rapidly accumulating wealth of detailed knowledge and of special technique demands an increased specialization unless there is a periodic intellectual stock-taking there must inevitably be a loss of perspective and of grasp of great general principles. But how can this stock-taking be done? Can team work ever reach the harmony of action which distinguishes the individual? How will scientific literature develop?' Referring then to the observed tendency of research-workers to confine themselves increasingly to narrower and still narrower fields within the same division or subdivision of a subject, he asked: 'How will the results of their special investigation be brought to common ground if no great unifying principles come to light? Can we expect that such unifying principles will appear? If they do not, will the progress of science be brought to an end by the accumulation of its own products?'

"Though the remarks quoted above were made with special reference to the Physical Sciences, they apply with equal force to the other departments of study; and in noticing these remarks at that time, the writer of this article was led to observe that the division of labour for purposes of intensive study has proceeded in every department of scientific inquiry (History, Archæology, Politics, Economics, Sociology, Literature, etc.), in geometrical progression, with the result that the interest of each individual research worker is being cribbed, cabined and confined within progressively narrowing ranges till his very capacity for wider interests appears to be seriously in danger of being crippled, if not destroyed altogether. This is the penalty he has to pay for specialisation." And he pointed out that this new school of research-workers undoubtedly suffered in point of general culture; and, lacking general education and breadth of outlook themselves, were (when they were installed in teaching posts) naturally quite unable to impart this general education and breadth of outlook ("perspective" as Professor Lovatt Evans called it) to their students, so that in the result the newer generation of students (very few of whom naturally are cut out for and expected and still less required to be research-

workers) are seen to exhibit less and less of those essentials of the citizens of a civic commonwealth ; and he appealed for steps to be devised, before the dangerous possibilities of the situation had time to develop to extremities, to arrest its further progress in that direction.

"The educational outlook at the present moment of those in charge of teaching work in all parts of the world where there is any kind of education organised on modern lines is dominated by what has been aptly designated by Professor Lovatt Evans as the 'idolization of research'. Teaching appointments of every kind all over the world are thus coming to be filled increasingly as a rule by men very deeply conversant with some one or other restricted patch of knowledge, but who in almost in the same proportion in which they are so conversant are at the same time lacking in adequate apprehension of the wider interests which alone can give significance to the fragments which occupy and absorb them.

"I shall close the article by circularising a piece of news which will connect its closing topically with its beginning. The Association of German Men of Science and Physicians, it has been recently announced, has reorganised itself with a view 'to opposing the splitting up of medicine and the natural sciences into various specialities.' The officers of the society will not organise any professional meetings for the discussion of topics pertaining to a single branch of science or medicine, and it is expressly stated in the programme that 'There is no place in the association for those persons who have no interest in anything outside their own speciality.' "[3]

The writer naturally laments that the innate taste and curiosity of students have been numbed and frosted by early specialisation.

I have already given several instances to prove that youngmen with their heads crammed with mere book-learning fail hopelessly in work-a-day life and in business. Dr. E. H.

[3] *Cultivated Ignorance* by Nagendranath Ghosh : *India and the World*, Nov., 1934.

Hankin in his *Mental Limitation of the Expert* has treated the subject exhaustively. I conclude this chapter with a few excerpts from it:

"Many instances have been adduced of highly developed business ability in badly educated persons and we have even found reasons for suspecting that education, despite its advantages in other respects, checks the development of the business instinct.

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"Cecil Rhodes once said that college dons are babes in financial matters."

Stephen Leacock thus sums up his experience as a schoolmaster in Canada: "I have noted that of my pupils those who seemed the laziest and the least enamoured of books are now rising to eminence at the bar, in business, and in public-life, the really promising boys who took all the prizes are now able with difficulty to earn the wages of a clerk in a summer hotel or a deck hand in a canal boat."

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"An acquaintance who had been to a certain school told me it was notorious that education there was so good that its boys were constantly getting scholarships and exhibitions at the universities. But it was also notorious that one never seemed to hear of them afterwards.

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"The Indian student, who arouses the despair of his schoolmaster by learning a text-book by heart, without having properly assimilated its contents, is by no means distinguished for general knowledge."

"Mr. L. K. Ananta Krishna, Superintendent of the Ethnographical Survey of Cochin State in Southern India, tells me that the Mahomedans in Cochin are known as 'Moplahs.' They originated from the union of Arab immigrants with women of the soil. Their mother tongue is Malayalam. Their education is next to nothing. They can read Arabic, but there are no scholars among them. They know enough arithmetic to

calculate interest. They are good businessmen. The trade in hides is mostly in their hands. They predominate in both wholesale and retail manufactured commodities, paper, timber and other local products. Mr. Ananta Krishna tells me that, in Southern India educated Hindus may be found in retail but never in wholesale trade."

My frequent visits to Madras and Bangalore have enabled me to verify the above statement of Mr. Ananta Krishna. Sir Ismail Sait of Bangalore who began life as a pedlar, rose to be a millionaire by his business capacity. The Multanis, Memons of Cutch and Boras and Khojahs of the Moslem community, though not "learned", have a monopoly of some of the big businesses.

CHAPTER XX.

Old Age—How to Battle Against It.

"Activity alone is life"—Count Rumford (Benjamin Thompson).

I once asked a well known chemist in London why it is that chemists of eminence have generally been long-lived; one should have rather feared that working for hours on end "in the stinks" and sometimes inhaling malodorous and obnoxious gases and fumes, they would just be the people whose duration of life might be shorter than that of the average span.

The explanation I was given at once struck me. The researcher in the laboratory pursues his aim irrespective of immediate material gains. The work itself is his pleasure—he is keen after the results and watches not only with breathless interest but also keen enjoyment every step leading to the realisation of his aim. The explanation has also been given by Dr. Hollander in a book just published—*Old Age Deferred* (1933):

"A philosophical mind, interested in the study of nature and search after truth, besides affording the purest of human enjoyments, appears to have a tendency to promote longevity. Plato was 81, Newton 85, Kant 80, Galileo 78, Buffon 81, Herschell 34, Franklin 84 and Herbert Spencer, though an invalid, died in harness at 83. Darwin, too, completed one of his greatest works towards the close of his life.

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"An exception to the weakest side of longevity are men of science, who owing to their minds being centred on the problems in the solution of which disturbing influences are deliberately set aside, have a high average of longevity. They are to a large extent free from the baleful emotivity which is a frequent accompaniment of creative genius. They are not the slaves of passions which wear out the body."

I have known, on the other hand, accountant generals, drawing princely salary, consuming midnight oil over figures mounting up to several digits as the financial year draws to a close. Most of them have been shortlived and I have never envied their lot, inspite of the substantial emoluments which they enjoy. Highly placed Government officers, more often than not are so many drudges or hacks of routine ; they are no better than soulless machines toiling like galley slaves.

I—Senile Mental Changes.

The authority quoted above thus summarises the drawbacks incidental to old age.

"Long before any physical signs of old age appear, mental changes may have occurred quite imperceptibly. A man, hitherto full of energy, enthusiasm, and cheerfulness, discovers that the pleasures of life no longer offer the same enjoyment to him ; that the society of young men is apt to bore ; that they belong to a new generation, whose interests and enjoyments are not his own. His views, political, social, or scientific, for which he has hitherto fought with all his energy, become moderated. Altogether, he grows more serious and sedate. The passions have lost their fervour, the intoxication of youth is gone, and he falsely prides himself on his self-control.

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"Robbed of every other interest in life, they never think beyond their personal affairs.

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"There is no longer the same intuition and inspiration and former concentration.

"Youth is defiant, grapples with life, laughs at difficulties and discomforts, and enjoys danger for the thrill of the thing. As we grow old, we change, lose the zest and the capacity to endure hardships. We lose the precious gift of curiosity ; become bored easily, and finally accept comfortableness as a consolation for what we have missed. There is loss of initiative in the old man, enthusiasm wanes, and the *tedium vitae* makes him feel that the game is not worth the candle."

Somehow or other I find that though my hair is turning gray and the infirmities of age are slowly creeping on, my energy and enthusiasm and even capacity for work are as great as ever. In fact, I now easily realise the complaint of Plotinus to the effect that the creator made a mistake in imprisoning the human soul with its infinite aspirations in a fragile and decaying cago. Ever since taking my B.Sc. degree, *i.e.* exactly half a century ago, I have been a devoted student of my favourite subject; and if for a single day I have to be absent from my laboratory, I grieve like Titus: "Oh, friends! Today I have lost a day."

A French chemist, evidently younger than myself, expresses his exultation over the fact that for the last 35 years he has been unremittingly pursuing his favourite subject, *viz.* the fluorination of organic compounds.[1] Recently a colleague and ex-pupil of mine and of Prof. Urbain (of the Sorbonne, Paris), Dr. P. B. Sarkar, has hit upon a process of extending and amplifying this work, but he had to give it up as he is busy with researches pertaining to his own special line. I have, however, in collaboration with a junior pupil of mine taken it up as I find it of supreme interest. Another branch of investigation emanating from the suggestive and ingenious brain of Dr. Sarkar has simply fascinated me. I have myself been pursuing my work on the varying valency of platinum, gold, and iridium with unabated zeal. I need scarcely add

[1] In course of a communication made to the *Congrès des Sciences* held in Brussels, July, 1930, F. Swarts, Professors at the University of Gand said:

"At the time when I was initiated in chemistry, the chemistry of organic fluorine compounds was rarely touched upon.

"An almost virgin field was opened to us—as fluorine was regarded markedly different in its behaviour from the other halogens.

"Once entered into the field (since 1895) we have rarely been able to come out of it up till now. The harvest was very much rich at least as it appears to us".

Cf. P. C. Rây: *Fluorination of Organic Compounds.* P. B. Sarkar and A. Rây: *Nature,* Nov. 11, 1933, p. 749; *Isomorphism and Chemical Constitution, ibid.,* April 28, 1934; *A New Method of Fluorination of Organic Compounds, ibid.,* July 29, 1933.

here that my investigations on the nitrites of mercury and nitrites in general kept me fully engaged for quarter of a century and more.

I do not for a moment allow myself to be regarded as a back number or a spent force, but try to keep abreast of the latest advances in my science.

Here for a moment, let me advert to the tragedy of long life. The German chemist-philosopher, Ostwald, somewhere says that longevity specially in the case of scientific men has often a serious drawback ; youngmen coming to the fore subvert long-accepted theories propounded by them. Anent this point the considered opinion of one of the greatest of living authorities on organic chemistry may be quoted here :

"I feel that it is not important for the scientist whether his own theory proves the right one in the end. Our experiments are not carried out to decide whether we are right, not to prove that we are right, but to gain new knowledge. It is for knowledge's sake that we plow and sow. It is not inglorious at all to have erred in theories and hypotheses. Our hypotheses are intended for the present rather than for the future. They are indispensable for us in the explanation of the secured facts, to enliven and to mobilize them and above all, to blaze a trail into unknown regions towards new discoveries."—Richard Willstätter in The Willard Gibbs Medal Address for 1933.

The great Swedish chemist, Berzelius, for three decades the autocrat and law-giver in the chemical world, had the misfortune to see his pet electro-chemical theories knocked on the head by two young chemists, Gerhardt and Laurent. "Damn the French chemists", exclaimed he in disgust. When the young van't Hoff, 22 years old, propounded his now famous theory of the arrangement of atoms in space, the old veteran German chemist Kolbe thus wrote a scathing criticism :

"A Dr. van't Hoff"—so runs the diatribe—"of the Veterinary College, Utrecht (he had in the meantime been appointed to an assistantship at this place) appears to have no taste for exact chemical

research. He finds it a less arduous task to mount his Pegasus (evidently borrowed from the Veterinary College) and to soar to his chemical Parnassus, there to reveal in his *La Chimie dans l'espace* how he finds the atoms situated in the world's space.

"His hallucinations met with but little encouragement from the prosaic chemical public. Dr. F. Hermann, assistant at the Agricultural Institute of Heidelberg, therefore undertook to give them further publicity by means of a German edition. . . . It is not possible, even cursorily, to criticise this paper, since its fanciful nonsense carefully avoids any basis of fact, and is quite unintelligible to the calm investigator. . . ."

"Kolbe goes on to deplore the times. To think that an unknown chemist should be given a ready ear when he talks of the most difficult of problems, and particularly when he treats them with such perfect assurance!

"If I quote Kolbe's criticism at some length it is only to show—for the tenth time, no doubt—how very often some of the most powerful intellects of the day completely misunderstand the germ of a new idea. And Kolbe was a most representative scientist of his time. Yet to-day there is not an elementary book in organic or physical chemistry but devotes no inconsiderable portion of its text to stereochemistry!" —Benjamin Harrow.

When Thomas Young began to write on physical optics, the undulatory theory of light had made little headway against its rival, the emission theory, owing to the powerful name of Newton connected with it. The vital importance of Young's contributions was not understood and he received a castigation at the hands of Henry Brougham in the *Edinburgh Review* (1803). The critic could find in them "nothing which deserves the name either of experiment or discovery," considered them "destitute of every species of merit," and admonished the Royal Society for printing such "paltry and unsubstantial papers."

Newlands, an Englishman, had anticipated the Periodic Law of Mendeleèf. "In a paper read before the English Chemical Society in 1866, Newlands showed that the elements could be arranged in groups of eight along horizontal lines in such a way that elements in the vertical columns would be those with similar properties. The law of Octaves was given to this grouping of eights. The reception of the theory by Newlands'

fellow-chemists was anything but encouraging. One ostentatious busybody wished to know whether Newlands had tried to arrange the elements according to their initial letters! Another suggested new possibilities in the field of music with the law of octaves! The upshot of the affair was that poor Newlands was sent home thoroughly ridiculed, and his paper was refused publication in the Society's journal. That, however, did not prevent the Royal Society from making some amends twenty-one years later by awarding him its Davy Medal for the very paper which its sister organisation had refused to print."—Harrow.

Such instances can be multiplied. If I allude at all to some of these, it is only to throw some light on my later career.

Let me now make an excursion into the field of politics to illustrate the tragedy of old age. After the death of Parnell, Redmond became the one dominant figure in Irish political life and when the great war broke out, he announced from his place in the House of Commons that at this great national crisis, he and his compatriots, would forget their national grievances, and make common cause with his English friends. It is unnecessary to add with what a tremendous ovation his statement was received in the House. But he had evidently counted without his host.

It is true that the majority of the Irish people still owed allegiance to the Irish Parliamentary Party. But the volunteer movement had already been started and the irate and insane policy of the British Government in the wake of the Easter insurrection culminating in rage and panic and wholesale arrests and indiscriminate shootings under General Maxwell, drove the former into the camp of the Sein Feiners ; and the latter began to capture the imagination and heart of the emotional Irish people. Redmond, it is needless to say, had his faith unshaken in the method of winning freedom for Ireland by speeches on the floor of the House of Commons and gradually lost his hold on his countrymen. The authentic leadership in due course passed into the hands of Arthur

Griffith, W. T. Cosgrave, Eamon De Valera, Michael Collins and other youngmen.

An interesting parallel may be drawn between Redmond and our own Surendranath Banerjee. A great patriot, the maker of politically conscious India, the hero of a hundred fights on the platform, he was one of the first to welcome the Montague-Chelmsford Reform and accepted a place in the Bengal Ministry with a salary of Rs. 64,000 a year. And this proved his undoing. Never were the poet's lines better verified:

> "The valiant warrior famoused for fight,
> After a hundred victories once foiled,
> Is from the book of honor razed quite
> And all the rest forgot for which he toiled."[2]

Needless to say Surendranath henceforth was regarded by the nationalists as a spent force and his influence in the political world dwindled into insignificance.

Another instance may be given here of the failure of men to march with the times. Lord Ripon, who was the idol of the people of India during his viceroyalty in the early eighties of the last century on account of his political reforms satisfying Indian aspirations, evidently became a back number in the cabinet in 1905-6. When Lord Morley, as the Indian Secretary, made the proposal that an Indian member should be included in the Viceregal Cabinet Ripon opposed it.[3] He had evidently failed to grasp that the India of 1884 was not the same as the India of 1905.

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[2] The above is a variant of Shakespeare's sonnet No. XXV (adopted by Emerson) where the reading is as follows:

> "The *painful* warrior famoused for might,
> After a *thousand* victories once foiled."

[3] "Then what carried great weight, as was to be expected, was the fact that Ripon, whom nobody will suspect of want of sympathy with Indian hopes and claims, was hostile to the proposal on the merits—mainly on the secrecy argument—that the Member would have to know military and foreign secrets etc."—Lord Morley: *Recollections*, II. p. 211.

Somehow or other, in every sphere of activity my radicalism seems to be, instead of being on the wane, progressing towards the left, as readers of my life-sketch will not fail to notice.

One reason why pensioners and retirers from business find life dull, tedious and wearisome is that they have been self-centred and have never learnt to take any interest in affairs outside their own particular line. They have been mere wage earners ; their attention has always been engrossed in the work appertaining to their immèdiate sphere and thus unable to take kindly to any kind of humanitarian occupation. I may also add that I live over again in the researches of my pupils and grand pupils and feel the ineffable joy of parental pride in their successful achievements.

I append here a list of papers published by Priyada Ranjan Rây, my colleague and ex-pupil in the Inorganic Department, independently and jointly with his pupils during 1933-35. Besides having recognition as an Inorganic Chemist, Mr. Rây has already established his reputation as an analyst in the field of both macro- and micro-chemistry. In this latter connection mention may be made of his work on the use of rubeanic acid as a micro-chemical reagent for copper, cobalt and nickel. This reagent is now in general use.

1. Substituted complex cyanocobaltiates. II.—Disulphito-tetracyano cobaltiates and the influence of substitution upon the properties of complex ions.—Z. für anorg. u. allg. Chemie, 1933.
2. On the constitution of molecular compounds.—Sir P. C. Rây Jubilee Volume of the Indian Chemical Society, 1933.
3. The decomposition of thiosulphato-pentacyano-cobaltic acid and the isomerism of thiosulphuric acid.—J. Indian Chem. Soc., 1933.
4. Dithiosulphate-diethylene-diamine cobaltiates.—J. Indian Chem. Soc., 1933.
5. Quinaldinic acid as an analytical reagent : Estimation of copper, zinc, cadmium, uranium and colorimetric estimation of iron—Z. für anal. Chemie, 1933.
6. Compounds of hexamethylenetetramine with complex cobalt salts and the nature of residual affinity.—J. Indian Chem. Soc., 1934.
7. Simple and complex iodates of quadrivalent lead.—Z. für anorg. u. allg. Chemie, 1934.

8. Substituted cyanocobatiates. III.—Diaquo-tetracyano cobaltic acid and its salts, cobaltic cyanides.—Z. für anorg. u. allg. Chemie, 1934.
9. Compounds of dimethylglyoxime with cobaltous chloride.—J. Indian Chem. Soc., 1934.
10. Quinaldinic acid as a micro-reagent—I. Estimation of zinc and its separation from manganese.—Michrochemie, 1935.
11. Quinaldinic acid as a micro-reagent—II. Estimation of copper and its separation from cadmium, manganese, nickel, cobalt, etc.—Microchemie, 1935.

Papers published by pupils working under his guidance or supervision.

1. Simple and complex metallic salts of thiosulphato pentacyano cobaltic acid. By S. N. Maulik.—J. Indian Chem. Soc., 1934.
2. Study of polyhalides I.—Formation and dissociation of polyhalides of hydrogen. By S. K. Ray.—J. Indian Chem. Soc., 1934.
3. Study of polyhalides II.—Formation and dissociation of polyhalides of sodium, potassium, strontium and barium. By S. K. Ray.—J. Indian Chem. Soc., 1934.
4. Study of polyhalides III.—Solubility method. By S. K. Ray.—J. Indian Chem. Soc., 1934.
5. Parachor and chemical constitution. I. By S. K. Ray.—J. Indian Chem. Soc., 1934.
6. Determination of parachor in solution. I. By S. K. Ray.—J. Indian Chem. Soc., 1934.
7. Parachor and ring structure. I. By S. K. Ray.—J. Indian Chem. Soc., 1934.

Then again, whenever a new industry is to be started in Bengal or anywhere in India I feel a sort of personal concern, as it were, in its infant career and my humble self is often in requisition to stand as its godfather. Hence the buoyancy and elasticity of youth never desert me.

Social service also has had a peculiar attraction for me. The distress caused by the famine, the flood, or the earthquake strikes a sympathetic chord in my heart and my never-failing colleagues and co-workers are not only by my side, but take care to drag me to the forefront.

The weak points and evils of the Hindu society as depicted in Volume I (Ch. XXVII) have affected me since the dawn of

my intelligence and I have never spared myself in enlisting my humble services towards their eradication.

Since the publication of the first volume, I have been called upon to undertake tours in the various parts of this vast peninsula covering some 30,000 miles. This sort of activity instead of bringing on fatigue due to over-exertion acts rather as tonic and relaxation ; I call it my holiday-making.

Unless you can march with the times and be *en courant* with the latest phases of activity and progress, you naturally degenerate into a fogey or fossil ; hence the tragedy of senescence. Somehow or other, almost intuitionally, I am surrounded in my laboratory by young researchers, who are thoroughly in touch with up-to-date knowledge of the subject. In the Bengal Chemical and Pharmaceutical Works Ltd. also, which is a field for applied chemistry, there are dozens of chemists who not only keep going on the daily routine requirements but are always alert and on the lookout for fresh fields and pastures new. As a matter of fact, several new processes have been worked out of late and a number of new preparations introduced.[4]

It is only a truism to say that in the laboratory as also in actual business to rest on the oars or to stand still means stagnation. "A rolling stone gathers no moss" is a trite saying. I keep clear of old people as their company is apt to give me a cold douche and damp my enthusiasm. I even take care to have no looking glass about me, as being a faithful remembrancer of my ownself, it reminds me of the havoc played by age on my appearance.

The misfortune of longevity is well illustrated in Louis XIV and Aurangzib, both of whom reigned half-a-century ;

[4] About 30 papers have been communicated from the research laboratory of B. C. P. W. by Dr. B. C. Guha and his collaborators, of which I quote only a few :

Nature, 1932, *130*, 741 ; 1933, *132*, 447 ; *Journal of the Indian Chemical Society*, 1933, *10*, 361 ; 1934, *11*, 295.

the former even much longer and wielded absolute power and was a warning against over-centralization of authority. Despotic monarchs, who in the intoxication of power have their heads turned, if they happen to be longlived, end their days in a tragic condition. Louis XIV, who has the record of the longest reign in European history, built up a thoroughly personal system of government. Even the greatest of his ministers, such as Colbert (home affairs) and Louvois (war) found themselves controlled by the king. All that concerns the externals of kingship made him appear to the common eye as playing the rôle of *Grand Monarque*. The king was the State (*L'etat c'est moi*) and in his regime all initiative in his administrators was necessarily lost.

Buckle (*History of Civilization in England*) thus sums up the reign of Louis XIV:

"The age of Louis XIV was an age of decay: it was an age of misery, of intolerance, and oppression; it was an age of bondage, of ignominy, of incompetence.

"The poets, dramatists, painters, musicians, sculptors, architects, were, with hardly an exception, not only born, but educated under that freer policy, which existed before his time. When they began their labours, they benefited by a munificence which encouraged the activity of their genius. But in a few years, that generation having died off, the hollowness of the whole system was clearly exposed. More than a quarter of a century before the death of Louis XIV, most of these eminent men had ceased to live; and then it was seen to how miserable a plight the country was reduced under the boasted patronage of the great king.

"Several years before his death, and when his protective system had been in full force for nearly half a century, there was not to be found in the whole of France a statesman who could develop the resources of the country, or a general who could defend it against its enemies. Both in the civil service and in the military service, every thing had fallen into disorder. At home there was nothing but confusion; abroad there was nothing but disaster. The spirit of France succumbed, and was laid prostrate".

J. N. Sarkar thus admirably summarizes in his *History of Aurangzib* the last days of the Great Mogul:

"One by one the old, able and independent officers and courtiers of his earlier years had passed away, and he was now surrounded only

by timid sycophants and upstart nobles of his own creation, who could never venture to contradict him in his errors, nor give him honest counsel.

"The last years of his life were inexpressibly sad. On its public side there was the consciousness that his long reign of half a century had been a colossal failure. The endless war in the Deccan exhausted his treasury; the Government turned bankrupt; the soldiers starving from arrears of pay (usually three years overdue) mutinied; and during the closing years of his reign the revenue of Bengal, regularly sent by the honest and able diwan Murshid Quli Khan, was the sole support of the Emperor's household and army, and its arrival was eagerly looked forward to. While in the Deccan the Marathas remained supreme to the end, lawlessness reigned in many places of Northern and Central India also. The old Emperor in the far South lost control over his officers in Hindustan, and the administration grew slack and corrupt.

"On the political side he found that his lifelong endeavour to govern India justly and strongly had ended in anarchy and disruption throughout the empire. His own health had broken down, and the Court newsletters every now and then give us pathetic glimpses of the weak old Emperor. A sense of unutterable loneliness haunted the heart of Aurangzib in his old age. One by one all the older nobles had died out.

"This excessive interference of the head of the State kept his viceroys and commanders and even 'the men on the spot' in far off districts in perpetual tutelage: their sense of responsibility was destroyed, initiative and rapid adaptability to a changing environment could not be developed in them, and they tended to sink into lifeless puppets moved to action by the master pulling their strings from the capital. No surer means than this could have been devised for causing administrative degeneration in an extensive and diversified empire like India. High-spirited, talented and energetic officers found themselves checked, discouraged and driven to sullen inactivity. With the death of the older nobility, outspoken responsible advisers disappeared from his council, and Aurangzib in his later years, like Napoleon I, after the climax of Tilsit, could bear no contradiction, could hear no unpalatable truth, but surrounded himself with smooth-tongued sycophants and pompous echoes of his own voice. His ministers became no better than clerks passively registering his edicts."

The moral is obvious.

II—Old Age Generally not Fruitful in Ideas and Productiveness: Exceptions.

It is found generally that the great masterpieces in literature, art and discoveries in science have been produced or made between the ages varying from 25 to 45, but there are exceptions. Darwin (1809—82) inspite of continuous ill health published his epoch-making *Origin of Species* in 1859 and *Descent of Man* in 1876. No doubt the ideas had been germinating since a long time before the publication.

On the other hand, Cicero enumerates a great many instances of mental vigour, in fact, even in advanced years. "Temerity, indeed", says he, "is the usual characteristic of youth, as prudence is of old age" but then he refers to a "swarm of rash, unpractised, young orators."

"Sophocles continued in extreme old age to write tragedies. As he seemed to neglect his family affairs whilst he was wholly intent on his dramatic compositions, his sons instituted a suit against him in a court of judicature, suggesting that his understanding was impaired.

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"It is said that when the old bard appeared in court on this occasion, he desired that he might be permitted to read a play which he had lately finished, and which he then held in his hand: it was his *Œdipus in Colonos*. His request being granted, after he had finished the recital, he appealed to the judges whether they could discover in his performance any symptoms of an insane mind, and the result was that the court unanimously dismissed the complainants' petition. Did length of days weaken the powers of Homer, Hesiod, or Simonides, of Stesichorus, Isocrates or Gorgias? Did old age interrupt the studies of those first and most distinguished of the Greek philosophers, Pythagoras or Democritus, Plato or Xenocrates? or to descend into later times, did grey hairs prove an obstacle to the philosophic pursuits of Zeno, Cleanthes, or that famous Stoic whom you may remember to have seen in Rome, the

venerable Diogenes? On the contrary, did not each of these eminent persons persevere in their respective studies with unbroken spirit to the last moment of their extended lives? . . . . . But I was going to observe, that I am now in my eighty-fourth year, and I wish I had a reason to boast with Cyrus that I feel no sensible decay of strength.

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"Yet I can with truth, you see, affirm that old age has not totally relaxed my nerves, and subdued my native vigour. . . . . . As to those effects which are the necessary and natural evils attendant on long life, it imports us to counteract their progress by a constant and resolute opposition, and to combat the infirmities of old age as we would resist the approaches of a disease. To this end we should be regularly attentive to the article of health, use moderate exercise, and neither eat nor drink more than is necessary for repairing our strength, without oppressing the organs of digestion. Nor is this all: the intellectual faculties must likewise be assisted by proper care, as well as those of the body: for the powers of the body, like the flame in the lamp will become languid and extinct by time, if not duly and regularly recruited. Indeed, the mind and body equally thrive by a suitable exertion of their powers; with this difference, however, that bodily exercise ends in fatigue, whereas the mind is never wearied by its activity."

These expressions find an echo in another Roman, who lived sixteen centuries later, I mean Luigi Cornaro.

"I therefore affirm, that an old man even of a bad constitution, who leads a regular and sober life, is surer of a long one than a young man of the best constitution who leads a disorderly life.

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"In this I conformed to the proverb, which says, that a man, to consult his health, must check his appetite. Having in this manner, and for these reasons, conquered intemperance and irregularity, I betook myself entirely to a temperate and

regular life, which effected in me the alteration already mentioned, that is, in less than a year it rid me of all those disorders which had taken so deep a root in me.

"Thanks, however, to that regular and temperate course of life, I have ever led I am still capable of taking an active part in the public scenes of business. In fine, he who fills up every hour of his life in such kind of labours and pursuits as those I have mentioned, will insensibly slide into old age without perceiving its arrival: and his power instead of being suddenly and prematurely extinguished, will gradually decline by the gentle and natural effect of accumulated years."[5]

One or two other remarkable instances of mental vigour battling against senile decay may be mentioned. Speaking of Ranke Lord Acton says:

"I saw him last in 1877, when he was feeble, sunken, and almost blind, and scarcely able to read or write. He uttered his farewell with kindly emotion, and I feared that the next I should hear of him would be the news of his death. Two years later he began a Universal History, which is not without traces of weakness, but which, composed after the age of eighty-three, and carried, in seventeen volumes, far into the Middle Ages, brings to a close the most astonishing career in literature."

In our days mention may be made of two prominent Englishmen of letters, Bernard Shaw (b. 1856) and H. G. Wells (b. 1866), who evidently betray no signs of senility in their latest writings; whilst Professor H. E. Armstrong (now about 82), the doyen of English chemists, has wonderful retentive memory and is in full possession of vigour of intellect.

[5] Addison in his *Spectator* thus speaks of the Venetian:

"Cornaro, who was the author of the little treatise was of an infirm constitution, till about forty, when, by obstinately persisting in an exact course of temperance, he recovered a perfect state of health; in so much that at fourscore he published his book, which has been translated into English under the title of *Sure and certain methods of attaining a long and healthy life.*"

III—A Physician's Receipt for Longevity.

"Get an incurable disease", said Oliver Wendell Holmes, himself a medical man, in giving a receipt for longevity—"Get an incurable disease, nurse it carefully, and you will see your strong healthy contemporaries dropping off one by one while you go on living." This is exemplified in the writings of Cicero and Cornaro quoted above. Emerson in his *Essay on Old Age* says: "We had a judge in Massachusetts who at sixty proposed to resign, alleging that he perceived a certain decay in his faculties; he was dissuaded by his friends, on account of the public convenience at that time. At seventy it was hinted to him that it was time to retire; but he now replied that he thought his judgment as robust and all his faculties as good as ever they were. But besides the self-deception, the strong and hasty laborers of the street do not work well with the chronic valetudinarian. Youth is everywhere in place. Age, like woman, requires fit surrounding. Age is comely in coaches, in churches, in chairs of state and ceremony, in council chambers, in courts of justice and historical societies. Age is becoming in the country. But in the rush and uproar of Broadway, if you look into the faces of the passengers there is dejection or indignation in the seniors, a certain concealed sense of injury and the lip made up with a heroic determination not to mind it. Few envy the consideration enjoyed by the oldest inhabitant. We do not count a man's years, until he has nothing else to count."

A veteran American chemist in the course of a review of the first volume of my *Life and Experiences* takes occasion to note:

"It is not too much to say that the gratifying development of chemistry in India in the last forty years is due directly and indirectly to Ray. This would be a marvellous thing for anybody to have done, but it is the more remarkable when one conaiders that Ray has been what most of us would call an invalid all his life. When thirteen years old he had a bad attack of dysentery which became chronic, making him a permanent valetudinarian with impaired digestive organs. He was a victim of indigestion, diarrhœa, and later on, of insomnia. He has had to submit to the most rigid observance of diet and regimen.

"All this however, was only half of Ray's life. To him the political was equally important. As a boy he had been attracted to the Brahmo Samaj movement which aimed at the abolition of Caste System, the removal of social inequalities (including the social relations between Englishmen and Indians) and uplifting of women by the spread of education among them."[1]

The reviewer, however, does not know—he may be pardoned for not knowing—that the above does but bare justice to my multifarious activities. I have had to respond to the call of every organization having anything to do with Swadeshi movement and at a moment's notice run to Bombay, Madras, Benares, Delhi, Lahore, Karachi to open exhibitions or to preside at conferences. As I am writing this Chapter suffering from a spell of insomnia in the suburbs of Calcutta near Barrackpore twelve miles away from the city, in the garden house of the expansion of Bengal Chemical and Pharmaceutical Works Ltd., I have to attend to diverse calls not only in connection with the affairs of this concern but with regard to three other industries in this locality. But I never allow my energies to be dissipated ; my attention is always confined to one subject at a time. Of Mussolini we read that he "has a mind divided into insulated compartments, so that he can pass from one subject to another with complete freshness of outlook. He sleeps little, but profoundly and at will." A few days ago (Jan. 1935) Reuter wired that over and above six portfolios he has taken up another. But unfortunately I am not a superman like Mussolini, but an ordinary mortal not possessing a fraction of his cool nerves and inexhaustible fund of energies.

It is only by rigid observance of the rules laid down by me that I am able to do what little I can lay claim to. In fact the writer has added this chapter as an *apoligia pro vita sua.* I have stated elsewhere that I became a chemist by mistake or accident. Literature, including history and biography, has always a fascination for me even in my old age. I have also

[1] Wilder D. Bancroft : *Journal of Chemical Education,* Vol. II, 1934, pp. 255-56.

indulged in many hobbies, and pursuit of hobbies is my relaxation. Recently agricultural pursuits including dairy farming have added fresh zest to my life.

IV—Youth *vs.* Age.

Mustafa Kemal Pasha, the maker of New Turkey, was 43 years old when he with the ragged, foodless cohorts, smashed the Greek army. His leading military commanders, Ismet and Rauf, were of comparatively young age.

If one were inclined to analyse the age of the fourteen Marshals on active list created by Napoleon in 1804, he would find that seven of them were between 36 and 39, three between 41 and 42. "At the date of the battle of Austerlitz, Napoleon was thirty-six, Berthier fifty-two, Bernadotte forty-two, Davout thirty-five, Soult thirty-six, Lannes and Mortier thirty-seven; the average age being thirty-nine. Kutusov, the Russian Commander, was sixty.

"At Jena, the Emperor was thirty-seven, Berthier fifty-three, Bernadotte forty-three, Davout thirty-six, Soult and Lannes and Ney thirty-seven, Bessières and Mortier thirty-eight and Murat thirty-nine. The Duke of Brunswick was seventy-one, Hohenlohe was sixty-one, Blücher sixty-four and Mollendorf eighty-four."[1]

When Mussolini first took his seat as a Fascist Deputy in the Parliament he was thirty-eight years old and the average age of his fellow Blackshirt Deputies was twenty-nine. A year later (1922) he organized his celebrated March on Rome.

Nor need I add that Alexander the Great was thirty-three when he had conquered the then-world. The prominent Irish leaders who figured in the late campaign for winning the Free State were Michael Collins and De Valera.

"Collins was at the time [Easter week of 1916] slim and equally boyish in appearance and manner, hardly looking his 25 years and no occasion had arisen to call forth a display of his extraordinary qualities of intellect and character.

[1] A. G. Macdonnel: *Napoleon and His Marshals*, pp. 114, 132.

"At the Keating Branch of the Gaelic League Michael Collins met several youngmen who later were closely associated with him in his work, and played an important part in the events of succeeding years. Among them were Fionan Lynch, now Minister of Fisheries in the Free State ; Gearoid O'Sullivan, who later became Adjutant General of the Irish volunteers ; Diarmuid O'Hegarty, later Director of Organisation of the volunteers, and Secretary of Dail Eireann, now Secretary to the Free State ministry ; and Con Collins, then a particular chum of Sean MacDiarmuda, later a member of Dail Eireann. He also renewed his acquaintance with Colm O'Murchadha, whom he had known in London ; Colm is now Secretary to Dail Eireann."[1]

When you want to change the old order and begin *de novo* on a clean slate as it were, then younger men boiling over with enthusiasm, flushed with and brimful of new ideas come to the fore ; thus we find that premier Giolitti, an old Parliamentarian and his creatures, Facta and Nitti, brought up in the tradition of liberalism, intent on doing everything through constitutionalism, *i.e.* Parliamentary majority, though the latter was often secured by means of questionable methods, utterly failed to stem the tide of communism. He simply temporised with this group and tried the master game of working off one party against another ; affairs were thus drifting from bad to worse. Trade was penalised, industries gutted, and railway and telegraph services were almost paralysed due to strike among workmen. There was not only invasion of factories but also of private estates with destruction of farms, crops and livestock. Finances were upset ; and the budget debit balance piled up by millions of lire. At this very critical but psychological moment Mussolini conceived the bold plan of his march to Rome. His dictatorial government succeeded in restoring peace, and industries and agriculture once again flourished. He also changed Italian foreign policy from drift to positive drive.

[1] *Michæl Collins and the Making of a New Ireland* by Piaras Béaslâi, Vol. I., pp. 76, 80.

One more example:

"Not only is the world the heritage of the young, as has been said. The young make the world what it is. Dr. Duff had really done his work in India when he was twenty-eight; he had, apparently, completed its parallel side in Great Britain when he was thirty-three; he had consolidated the whole system, and he saw it bearing rare spiritual as well as moral and intellectual fruit before he was thirty-seven. So, in the same field of reformation, Luther and Melanchthon in Germany, Pascal and Calvin in France, Wesley and Simeon in England, and Chalmers in Scotland had sowed the seed and reaped the early harvests while still within the age which Augustine pronounces the 'culmen' and Dante the 'key of the arch' of life."—*The Life of Alexander Duff* by Geo. Smith, Vol. II, 1879.

In Russia again, when Tsardom was abolished and the old order gave place to the new, the prominent figures, Lenin, the apostle of Sovietdom, Trotsky and Stalin were comparatively young men.

Nor need we refer to Hitler, the quondam labourer under a contractor, the leader of the Nazis, who has made himself the dictator of Germany. Even the aged Hindenburg, the hero of Tannenberg, had to court his favour. These instances would suffice to prove that when the old regime perishes and a new one arises sphinx-like out of its ashes, it is the young who usher in the fateful epoch; in other words men brought up in the *ancien regime,* who have imbibed its principles along with their mothers' milk, find it difficult to break with the past and accept novel ideas and look askance at the doings of youth. They fret and grumble and ultimately bow to the inevitable. "The march of Hitler's youthful followers is as defiant as the air of the youngmen. They do not want to accept compromises and half measures. . . . The younger generation is aligned against age, because the search for 'something new' must go on ceaselessly, feverishly, frantically. Fathers and sons, mothers and daughters are on the opposite side of the fences and the offspring knows no mercy in its dealings with the old. The search for a New Renaissance is on."—Lengyel: *Hitler.*

CHAPTER XXI.

Half a Century and After.

I have been rather shy of describing in detail my services in the cause of chemistry especially in their application to my native land. Some people have expressed surprise and disappointment that in the first volume of the *Life and Experiences of a Bengali Chemist* comparatively little space has been allotted to the personal and chemical side while much has been devoted to the "Experiences".

Looking across a gulf of half a century with some degree of detachment I can afford to amplify my life as a chemist. Strange as it may appear I discern some degree of similarity between my life and that of W. H. Perkin (b. 1838). When but a lad of seventeen the great English chemist had earned imperishable renown by his discovery of the first aniline dye (mauve). He had achieved, what is still more to his credit, the building up of the first synthetic dye-industry in the world. His leaning towards chemistry led him to seek admission to the Royal College of Science, of which the head professor was no other than Hofmann, "an imported product."

"When but seventeen Perkin already had shown his mettle to such an extent that Hofmann appointed him to an assistantship. This otherwise flattering appointment had, however, the handicap that it left Perkin no time for research. To overcome this the enthusiastic boy fixed up a laboratory in his own home, and there, in the evenings and in vacation time, the lad tried explorations into unknown regions.

"The celebrated experiment which was to give the 17-year-old lad immortality for all time was carried out in the little home laboratory in the Easter vacation 1856.

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"Full of hope and courage, the young lad had decided to stake his future on the success or failure of this enterprise. He was going to leave the Royal College of Science, and with the financial backing of his father—who seems to have had a sublime faith in his son's ability—he was going to build a factory where the dye could be produced in quantity.

"Hofmann was shown the dye and was told of the resolution. The well-meaning professor, who seemed to have had more than a passing fondness for the lad, tried all he could to persuade Perkin against any such undertaking. And let it be added that in that day, to any man with any practical common sense, Perkin's venture seemed doomed from the start.

"A site for the factory was obtained at Greenford Green, near Harrow, and the building commenced in June, 1857.

"At this time", wrote Perkin years later, "neither I nor my friends had seen the inside of the chemical works, and whatever knowledge I had was obtained from books. This, however, was not so serious a drawback as at first it might appear to be ; as the kind of apparatus required and the character of the operations to be performed were so entirely different from any in use that there was but little to copy from."

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"The mode of procedure, the technic, the apparatus—all are based on the work of this eighteen-year-old lad. Only those who have attempted to repeat on an industrial scale what has been successfully carried out in the laboratory on a small scale, will appreciate the difficulties to be overcome, and the extraordinary ability that Perkin must have possessed to have overcome them. Think of a Baeyer who synthesised indigo in his university laboratory, and then think of the twenty years of continuous labor that was required before the Badische Anilin u. Soda Fabrik, with its hundreds of expert chemists and mechanics, was in a position to produce indigo in quantity. And it would have taken them and others much longer time but for the pioneer work of young Perkin.

"Such dimensions has the coal-tar industry assumed since then that in 1913, at one single factory, the Baeyer Works in Elberfeld, Germany, there were employed 8,000 workmen and 330 university trained chemists. Says *Punch*:

There's hardly a thing that a man can name
Of use or beauty in life's small game
But you can extract in alembic or jar
From the "physical basis" of black coal tar—
Oil and ointment, and wax and wine,
And the lovely colors called aniline;
You can make anything from a salve to a star
If you only know how, from black coal-tar.

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"In 1874 Perkin sold his factory, and from henceforth devoted himself exclusively to pure research.

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"When Perkin left the Royal College of Science at 17 he had this in mind. Financial insecurity may spur you on, but to give the very best that is in you requires freedom from such burdens.

"What led him to give up the factory and to devote himself exclusively to pure science was sheer love of the subject. It is the type of the love which, when associated with genius, has led to the world's greatest literary and artistic productions.

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"The year 1906 marked the fiftieth anniversary of the founding of the coal-tar industry, and the entire scientific world stirred itself to do honour to the founder."[1]

I fully endorse every word of the eulogy of Perkin; his great achievement as a lad of 18 was really remarkable.

I have referred at some length to the life-work of Perkin as a sort of setting to my much humbler career. It should not be lost sight of that in my case the initial difficulties were much

[1] Benjamin Harrow: *Eminent Chemists of Our Time.*

greater. Perkin was born in 1838. England was even then supreme in industrial, commercial and mercantile matters; nay, in what is called heavy chemical industry, she was indisputably as she is even now ahead of continental countries. As for America, she had not yet emerged from her agricultural life. Tennant had founded his alkali works, based on Le Blanc process, at St. Rollox, Glasgow as early as 1818 and his sulphuric acid and alkali plant was perhaps one of the biggest of its kind in Europe. While James Muspratt started in 1823 his works near Liverpool also based upon Le Blanc's. Various other colossal collateral chemical industries had sprung up in Great Britain.

"Andrew Ure (1778-1857) in 1821 published a Dictionary of Chemistry founded on that of Nicholson. This Dictionary attained a 4th edition in 1835 and formed the basis of Henry Watts. The Royal Society's catalogue gives a list of 35 papers by him dealing with physics, pure and applied chemistry."

Ure's *Dictionary* among others contains elaborate accounts of the preparation of hydrocyanic or prussic acid, "ferro-prussiate of potash and bleaching methods with the aid of oxy-muriate of lime" as also of chemical equivalents or proportions. "Ferroprussiate of potash is now manufactured in several parts of Great Britain on the large scale. Nothing can exceed in beauty, purity, and perfection the crystals of it prepared at Campsie by Messrs. Mackintosh and Wilson" (Ure's *Dictionary*, 1821).

It would thus appear that 17 years before the birth of Perkin, chemistry, theoretical and applied, was vigorously pursued in England. Nor should it be forgotten that Perkin not only got encouragement but also financial backing of his father, a builder and contractor.

Now to return from this relevant digression to my case. For two thousand years and more the Hindu intellect had revelled in metaphysical subtleties and in transcendental flights of sublime verities. Ram Mohun Roy's memorable letter to Lord Amherst (1823) may be cited as a protest against the perpetuation of mediævalism or scholasticism. Bengal was

again from the 15th to the 18th century the home of *Navya Nyaya* or the modern School of Logic. I have said somewhere, that such a people should take to English law, which was "a tortuous ungodly jungle," which "for its lucrative long-windedness" was difficult to beat, is quite in the fitness of things—they would be as much in their own elements as fish in water. To twist the mentality of the Bengali, or for the matter of that the Indian, and give it a new orientation in the study of physical sciences was in itself a task involving almost superhuman energies. Then again the Bengali has a hereditary aversion for industrial enterprises. Nor should it be forgotten that England had begot a Roger Bacon (b. 1214; d. *circa* 1294), and a Newton and a Boyle nearly 200 years before Perkin drew his breath. In short the soil of England was eminently propitious for the birth of a Perkin, a Davy, a Faraday, not to mention the eminent luminaries of later generation as also for industrial chemistry. India was as yet quite a stranger to physical sciences, at least for the last 1500 years or so. The difficulty of inducing young Indians to take to the study of chemistry and allied branches will now be understood. No doubt physical sciences had begun to figure in the curriculum of studies for the university degrees ; but they were taught as metaphysical curiosities, not counting as factors in the growth of intellectual progress much less with an aim to their application in industrial progress (*cf.* Vol. I. pp. 147—50). I had thus to keep both the ideas before me—to study science for its own sake and also to harness it for the development of industry. As Principal James said in 1912: "Another achievement of his which ought very specially to be remembered is the establishment of the Bengal Chemical and Pharmaceutical Works, an important and successful enterprise. It is everywhere recognised that one of the greatest needs of the time for all India and for Bengal in particular is industrial development. Dr. P. C. Ray is not a businessman, but a man of science ; but where businessmen have failed, he has helped to found a really successful industrial enterprise. And whereas he has contributed to the enterprise the best he had to give, his

knowledge and genius for chemistry, and done so much to make it a commercial success, he has left it to others to draw the dividends" (Vol. I. pp. 180-81).

Perkin showed the path and sold his factory so that he might devote himself exclusively to pure research. That was comparatively easy in England or Germany where industrialists are always ready at hand to take up a paying concern based upon entirely new process. But in our country such a course was out of question. Even after 42 years of slow but uninterrupted career of prosperity I find that my humble services in connection with the Bengal Chemical are indispensable.

In 1928 when the Indian Science Congress had its session in Calcutta, the Chemical Department of the Presidency College was "at home" to the Chemical and Physical Sections of the Congress. Principal H. E. Stapleton, who was formerly my colleague in the Presidency College as Professor of Chemistry (1903—5), in welcoming the guests observed that the following day they had been invited to visit the Chemical Works and thus they would have a unique opportunity of seeing with their own eyes what progress had been achieved in this direction from very humble beginnings. Speaking for himself he was inclined to set a much higher value on this application of our science to industry than on Dr. Ray's discoveries in connection with the nitrites, as what India needed at the moment was industrial development so that her own inexhaustible resources might be utilised for the country's benefit. Opinions might differ on this point, but I may be permitted to add that pure research claims me as her own even at this advanced stage of my life.

I referred above to some degree of similarity between my life and that of Perkin. But it is only partially true.

"Aside from his scientific achievements, Perkin's life was extremely uneventful. To him his science was his life, and he seems to have had no avocation. We find no romantic dash

no such many-sidedness, as characterised his great countryman, Ramsay, for example."[1]

My life has been so many-sided and chequered and diversified that the parallelism ends here.

I—INORGANIC CHEMISTRY—ITS INFINITE POSSIBILITIES.

When I presented my thesis for the Doctorate in 1886 I asked my Professor (Crum Brown) why it is that the pages of the chemical journals were almost entirely devoted to organic researches. His reply was that it was rather difficult to choose a subject in the inorganic side as there was not much room in it for the discovery of new facts—in fact, inorganic chemistry was played out. But while I was busy with inorganic chemistry at the laboratory, the eminent French chemist was laying the foundation of a new and unexplored field in this direction. "He began his labors at a time when chemists had all but deserted the field of inorganic chemistry for the chemistry of the carbon compounds. The cry had been raised that inorganic chemistry had exhausted itself." Moissan's work soon convinced people that the cry was a false one. Inorganic chemistry had, and still has, rich fields for investigators. What was needed was a man of genius ; and such a man was found in the person of Moissan.

It is rather a remarkable circumstance in the history of chemistry that of the halogen family of elements one was discovered by the Swedish chemist, Scheele, and the rest by Frenchmen.

"The work which, beginning in 1884, led Moissan to his first great achievement, the isolation of fluorine, has a history. Fluorine in the form of its compounds had long been known. Without ever having been isolated, the element was included in the group of elements known as the halogens, or salt-producers, because its salts showed striking similarities to salts of the rest of the group. The commonest member of this family is chlorine, and its sodium salt, sodium chloride,

[1] The quotations are from Harrow's *Eminent Chemists of Our Time.*

is the table salt so indispensable as a food. The other elements belonging to the halogen are bromine and iodine.

"Chlorine was discovered as far back as 1774 by Scheele, the famous Swedish chemist. In 1811 Courtois discovered iodine in the ashes of sea-weed, and fifteen years later Balard discovered bromine. It was not, however, till 1886 that the fourth, and the last member of the family, fluorine, was isolated by Moissan. The activity of this element—it is the most active (*i.e.*, chemically active) element known—had prevented its isolation prior to this date.

"Moissan next turned his attention to make artificial diamond. This again led to the invention of the electric furnace giving a temperature of 2000°C to 3000°C; with its aid the most refractory metals could be volatilised such as copper, silver, platinum, gold, tin and iron. Extensive researches on the combination of elements with carbon, boron and silicon to form carbides, borides and silicides respectively were carried out. It is enough here to lay stress on calcium carbide, which as the generator of acetylene has found universal use. With the electric furnace as with fluorine, Moissan embodied the results of his researches in book form under the title *Le Four Electrique*. In the preface to this work we find an admirable spirit admirably expressed: 'But what I cannot convey in the following pages is the keen pleasure which I have experienced in the pursuit of these discoveries. To plough a new furrow; to have full scope to follow my own inclination; to see on all sides new subject of study bursting upon me; that awakens a true joy which only those can experience who have themselves tasted the delights of research.' "[3]—Harrow.

Again, a new field with infinite possibilities has been added to inorganic chemistry by the discovery of radium by

[3] *Cf.* "On the Continent his scientific investigations are directly credited with a renaissance in the study of inorganic chemistry, which, particularly in Germany, had been almost entirely neglected for the more productive field of organic chemical research. Even in England, which has always held a high position in the pursuit of inorganic chemistry, his work has been of great assistance in instilling enthusiasm and encouraging the deeper study of the subject."—*Nature*, 1907, Vol. 75, p. 419.

the Curies. In fact, so vast has the literature on radium grown up that a special journal was founded by Madam Curie—*Le Radium*—to embody the ever growing researches in this field. Along with this the transmutation of elements, effected in the laboratories of Rutherford and Chadwick at Cambridge, Curie and Joliot in Paris by the bombardment of lighter elements like beryllium, boron, carbon, nitrogen, aluminium, magnesium etc. with projectiles like alpha-particles, protons and neutrons can be mentioned. Of course they are obtained in quantities the existence of which can only be proved by delicate physical methods. Recently "heavy" hydrogen and "heavy" water have already engaged the attention of investigators with results which are most remarkable and of far-reaching importance.

It will thus be seen that inorganic chemistry far from being exhausted has infinite possibilities. This evidently illustrates the soundness of Newton's remark that he was only picking up pebbles on the sea-shore, while the great ocean of learning remained unexplored.

II—The Rôle of Accident in Science.

I have said elsewhere that I became a chemist by accident as my inclination and leaning in early years lay towards literature and history.

How accidents play a prominent and momentous part in the history of science may well be illustrated by a few tangible examples. Ramsay evinced early a passion for languages. In after years as president of an international scientific gathering, he would astound the assembly by addressing them successively in French, German and Italian. "His introduction to chemistry came in quite an unexpected way. A football skirmish resulted in his breaking a leg, and to lessen the monotony of convalescence, Ramsay read Graham's Chemistry, with the object, as he frankly confesses, of learning how to make fire-works. During the next four years his bed room was full of bottles, and test tubes, and often full of strange odors and of startling noises. But systematic chemistry was

not taken up till 1869, three years after he had entered the University of Glasgow. Then, it seems, the passion came on, and with it, a passion for the cognate science, physics."

Of van't Hoff we read that "his own tastes led him to entomology and to literature, neither of which seemed practical enough, however, to the young Dutchman. To the end of his day Byron remained his god, and much of van't Hoff's early life and thought were modelled after that of the poet. Had not Byron declared that Burton's Anatomy of Melancholy was one of the most instructive books that had ever been written? Forthwith does van't Hoff plunge into Burton." No wonder he wrote English poetry in imitation of his god. "Fortunately for our Science, van't Hoff did not receive much encouragement from a fellow poet, and once again he turned his eyes to chemistry and Bonn and Kekulé." His innate love of chemistry was awakened. " 'The laboratory is a temple,' writes he to his father, ' . . . . and in the lecture room there are to be seen daily about a hundred of our most promising youngmen, gathered from ten different states, to hear and to see Kekulé, whose fame has spread itself over half the world.'

"Moissan's love of literature led the youngman to attempt the writing of a play—so often an emotional outlet for the youths below and above twenty. The play must have had merits, for it came near being produced at the Odéon.

"Perhaps it was as well that the play was not produced, for it might have made him neither a good dramatist nor a good chemist."

The American chemist, T. W. Richards inherited a taste for landscape painting from his father and "could a son of his do less than follow in his footsteps?" Fortunately he got his inspiration from a close friend of the family, J. P. Cooke whose *New Chemistry* gave a turning point to his career.

Victor Meyer, one of the greatest of organic chemists, during his early years at the gymnasium had "leanings rather towards literature than science. The drama especially had a strong attraction for him. Indeed, at fifteen, the boy had

quite made up his mind to become an actor. To his father's remonstrances, who watched these developments with much perturbation, Victor replied: 'Never can I become anything else—never! I feel it. In any other profession I shall remain a good-for-nothing the rest of my life.' Hoping against hope that possibly the university atmosphere would tend to direct Victor's thoughts in another direction, the family persuaded the youth to proceed to Heidelberg, there to attend some lectures in the company of his elder brother. In Bunsen the youngman encountered one of those rare minds who can see and demonstrate the beauty and poetry of anything they happen to be engaged in. From the lips of Bunsen chemistry issued forth as a song to nature, and as a song to nature Meyer caught the refrain. Here he followed Kirchhoff's lectures on physics, Kopp's on theoretical chemistry, Helmholtz's on physiology, Erlenmeyer's on organic chemistry, and Bunsen's on general chemistry—truly as illustrious a band of scholars as could be found anywhere." Again "Sandmeyer, one of Meyer's discoveries, is to-day known wherever chemistry flourishes. He started as a mechanic in Meyer's laboratory but soon gave this up to devote all his time to chemistry."[4] Similar instances may be cited in other branches of science.

I have brought together the above examples to illustrate a chapter in psychology. There is, it appears, in every human being a subconscious element, which ordinarily lies dormant, but brought under favourable circumstances it wakens up and submerges the conscious elements. In history we often read: "The hour makes the man." But it is not every man who rises equal to the occasion; it is the rare individual in whom the latent subconscious element already exists that is rendered active. Hence opportunities should be given to every one so that the best in him be brought out. Napoleon's policy of opening a career to merit only *"carrière ouverte a la mérite"*

[4] The quotations as above are from Harrow's *Eminent Chemists of Our Time.*

forcibly illustrates the point. Under the Bourbons no opportunity was given to the ordinary commoner to rise or to develop his inherent qualities. All the highest posts in the civil and especially in the military service were the monopoly of the "blue-blooded." Peter the Great, though a man "who was uneducated, unmannerly and uncivilized, made precedence depend on public service . . . . a new aristocracy superseded the old"—a new aristocracy, that is to say, based on intrinsic merit and not on the accident of birth.

On the eve of my departure from London in 1926, I received a letter from Walker (Sir James), which is reproduced below. When the chemical laboratory was being removed from the old building to the new in the suburbs of Edinburgh, Walker had to search carefully the shelves and the drawers of the Professor's private room for the recovery of all important documents and papers. In the course of which he came across my thesis presented for the doctorate degree. The introductory page of the thesis as also a page of my note book is appended below as photographic reproductions. My handwriting of the present time also is given side by side. It might be of some interest to the graphologists.

UNIVERSITY OF EDINBURGH,
Department of Chemistry,
15 July 1926.

Dear Rây,

I am sending as I promised the record of some of your early work here which you may now find of historical interest. . . . . .

Yours sincerely,
James Walker.

Title Page of the Thesis.

Conjugated ("Gepaarte") Sulphates
of the
Copper-magnesium Group:
A Study of Isomorphous mixtures
and
Molecular Combinations.

I. Historical and Introductory pp. 1-6
II. Investigations: . . . . . " 6-19
III. Discussion . . . . . " 20-27
IV. Summary and Conclusion . . . p. 28
V. Crystallography . . . . . " 29.

P. C. Ray.
Presented on 8th Nov. 1886.

First Page of the Thesis.

I

Historical and Introductory

I Cannot do better than begin with a brief historical Sketch and a résumé of the papers bearing upon the subject.

On the 9th of Dec. 1819 Mitscherlich read before the Academy of Berlin a valuable communication, which for the first time clearly enunciated the characteristics of Isomorphism. Hitherto the views propounded by the celebrated French crystallographer and mineralogist Hüay, namely: "la même forme cristalline pourvu qu'elle ne soit pas une forme limite, suppose les mêmes Substances reunies dans les mêmes proportions" was in the ascendant. It should however be remembered that Fuchs had already pointed out that the Carbonates of lime, baryta and Strontia have an identical form and can grow with one another. Beudant had even found that on mixing together Copper Zinc and iron Vitriols he obtained crystals which contained 75 per cent of $ZnSO_4$, 21 per cent of $CuSO_4$ and only 5 per cent of $FeSO_4$, but which had the same crystalline forms as the latter; indeed in his "melanges Chimiques ou association mecanique en proportions indefinies" we get a distinct glimpse of what we now understand by an "Isomorphous mixture". Leblanc and Gay-Lussac had also recorded similar observations. Hüay tried to obviate all difficulty by holding that in the above Combinations a body even

* Sur la Relation qui existe entre la forme cristalline et les proportions Chimiques. (Annales de Chim. et de Phys. Tome 14 p. 172 ibid. tome 19. pp 350-419.)

A Page from the Note-Book of 1882.

Nov. 1. 82.

Firmness (stability) of a compound is measured by the amount of heat evolved.

Direct and reverse chemical ~~separations~~ operations:

Compounds having a complex structure: In this case chemical analysis is preferable, whereas in those substances whose structure is comparatively simple synthesis (the reverse operation) is the better method, thus it is very difficult to decompose CaO.

Distinction between heat and temp. Gandt Art. 290 and Tait Rec. adv. p. 346.

Unit of heat (thermal unit) is that which is required to raise the temp. of an unit of water (say a pound or gramme) from 0° to 1°C.

Sp. heat, what is meant by it:

There are very very few substances whose sp. heat is greater than that of water.

Water is a good solvent of most chemical things, hence it is almost impossible to get perfectly pure water in nature.

By distillation we can get rid of only non-volatile impurities; volatile impurities can be got rid of by careful and repeated boiling.

25

Present-day Handwriting.

March, 1935

and give it a new orientation in the study of physical sciences was in itself a task involving almost superhuman energies. Then again the Bengali has a hereditary aversion for industrial enterprises.

Nor should it be forgotten that England had before a Roger Bacon (c. circa 1214) and a Newton and a Boyle nearly 200 years before Perkin drew his breath. In short, the soil of England was eminently propitious for the birth of a Perkin, a Faraday, not to mention the eminent luminaries of a later generation.

India was as yet quite a stranger to physical sciences, at least for the last 1500 years or so. The difficulty in inducing young Indians to take to the study of chemistry and allied branches will now be understood. No doubt physical sciences had begun to figure in the curriculum of studies for the University degrees; but they were taught as metaphysical curiosities, not counting as factors in the growth of intellectual progress or at most much less with a

CHAPTER XXII.

The New Constitution and Nascent National Industries.

The new Constitution which is going to be forced down the reluctant throat of the Indian people has spread a shiver of despair among those who are struggling with nascent industries. Mr. Mohan L. Shah, Vice-president of the Indian Chamber of Commerce, Calcutta, at the annual meeting of the Chamber on the 22nd February 1935 has already sounded a note of warning.

"The President has rightly remarked in his speech that the commercial safeguards as embodied in the J. P. C. Report and in the new Government of India Bill now before the Parliament will make impossible the development of national industries especially when they come into conflict with British interests. Sections 111-116 of the new Bill would severely handicap the powers and authority of the Legislature of the future and render difficult the pursuit of any national economic policy. For example, Section 113 provides that a company incorporated whether before or after the passing of this Act by or under the laws of the United Kingdom and the members of the governing body of any such company and its share-holders, officers, agents and servants shall be deemed to have complied with requirements and conditions laid down by any Federal or Provincial law relating to companies trading in British-India about incorporation or capital, control, management or personnel. In other words, if any legislation is passed, say, restricting Indian coastal trade or inland navigation to vessels whose capital, ownership, management and service are 75 per cent Indian, British companies registered in England with sterling capital and employing non-Indians will be construed to have complied with these provisions without actually doing so. The same remarks apply to any protection to Indian insurance or banking interests. As regards the grant of subsidies and bounties from Indian revenue, it would be impossible under the new provisions to refuse a bounty to, say, Lever Bros. or Imperial Chemicals if such a bounty is to be given to Indian soap or chemical enterprises, because otherwise it would be regarded as discriminatory. I doubt whether in the constitution of any country in the world more unjust and anti-national clauses could be framed and such restrictions imposed on the Legislature make impossible the development of national industries. If growing national enterprises have to be aided against competing and powerful non-national interests,

it has been provided that it will be obligatory to assist the powerful alien interests as well. These absurd and unjust provisions are sought to be defended on the ground of reciprocity. Mahatma Gandhi once characterised such reciprocity as that between a giant and a dwarf. Reciprocity, as Sir Pheroze Sethna pointed out in his recent speech in the Council of State, implies a certain measure of equality or similarity of conditions in the countries concerned. Is there any equality of conditions between the British shipping which is the largest and most powerful in the world and Indian shipping which has still to grow? 98 per cent. of the coastal trade of England is carried on by British vessels while only about 20 per cent. of the coastal trade of India is carried on by Indian vessels. The question of reciprocity between Indian and British interests can be seriously discussed only when Indian shipping industry has developed almost to the level of British shipping and not before that. It is not surprising that a moderate businessman like Sir Pheroze Sethna has characterised this talk of reciprocity as down-right hypocrisy and mere sham and in his interview on the new Constitution Bill a responsible moderate leader, Sir Chimanlal Setalvad, denounced the position regarding shipping in the new Constitution, which, he declared was 'a gross mockery that would prevent the development of Indian shipping against competing British interests. Under the new Constitution, there would be no possibility of Government safeguarding even key industries, nor would they be able to develop and expand such industries.

"In my personal relationship, I have found the Englishman to be a bold, generous and trusting fellow but unfortunately when the Britishers act in a body and deal with political and economic questions, they are not so statesmanlike or bold and generous. I would like them to remember that they cannot compel a nation to buy goods against its wishes or trade by the help of safeguards and reservations. The best safeguard is the good-will of a people and if Indians achieve real responsibility through the help of the great British commercial community, their position will be fully safeguarded as Indians will out of a sense of honour, if not gratitude, look after the interests of Britishers as their own. I would certainly welcome a trade agreement between England and India on fair and equal terms but England cannot have both treaties and safeguards and must decide whether they want to trade with the help of one or the other."

The Federation of Indian Chambers of Commerce has recently (March 23, 1935) adopted the draft resolutions for the 18th annual meeting in the course of which it says:

"The constitution laid down in the Government of India Bill does not in any way conform or approach to the promises and pledges held

out to India from time to time, and is more reactionary than the White Paper Scheme. The scheme proposed is based upon complete distrust in the sense of fair play of Indian Nationals and their ability to govern their own country and postulates numerous safeguards in the interests of British trade and industry which cut at the very root of fiscal autonomy and are a direct impediment in the way of national trade and indigenous industries, apart from their degrading character which no self-respecting nation can accept."

In fact, British connection has been the cause not only of the ruin of our cottage industries one by one but detrimental to the growth of the new industries on modern lines. Whereas in Japan the state has done everything in her power to help start her industries, the foreign rulers of India have all along done their level best "to employ the arms of political injustice to keep down and ultimately strangle a competitor with whom he could not have contended on equal terms." It is of a piece with England's previous dealings with India as regards financial matters.

It is a truism to say that but for the protection at least in the infant stages America, Canada and the dominions in general as also the continental countries could never have built their industries. India is a mere "possession." She can claim no such right. True she has got protective duties to build up her sugar industry, but then the competition lay with Java, who used to export into the Indian markets, sugar to the extent of 15 crores of rupees or more without buying anything adequate in return in the shape of imports. Moreover Java is not a British possession. Japan, an independent power, has forced India on the quota principle to buy so much of her textiles etc. on the understanding that she will buy in return so much of her raw cotton. When, however, the competition lies with direct British interests poor India must be sacrificed.

The Imperial Chemical Industries (India) Ld. has already established soap industries in Bombay and Calcutta and has acquired mining rights in the Punjab which will enable her in the near future to manufacture soda, sulphuric acid and other chemicals. Our infant chemical industries are thus threatened with extinction. For, when the I. C. I. spreads her

tentacles all over India, no indigenous competitor will be able to survive ; nay he will be strangled out of existence. How keenly the concession granted without consulting Indian opinion is felt will be realised from the extracts from the letters of Mr. Ruchi Ram Sahni, (late professor of chemistry, Government College, Lahore), President Northern India Chemical Manufacturers' Association.

I—MORTGAGING THE ECONOMIC RESOURCES OF INDIA.

"I have read with pain and disgust of the latest attempt on the part of the *trustees for India to mortgage* the economic resources of their ward for generations to come. . . . . What have the British Government in India done towards the training of their 'wards' for industrial careers? The pre-British India was as much an industrial country as it was an agricultural country. It would be perfectly useless now to go over the story of our numerous flourishing industries; how their disappearance, one after the other, has reduced hundreds of thousands of our skilled artisans into hungry hordes of landless and workless labourers and menials (*cf. ante* p. 245).

"I am afraid it is not sufficiently realised in this province that by the grant of the proposed monopoly, the economic life and growth of the province will be strangled. We hear so much about the coming reforms, with the first instalment in the shape of provincial autonomy. But provincial autonomy, or any kind of autonomy, will be a meaningless phrase and a mockery if the economic resources of the provinces are mortgaged beforehand to a foreign concern.

"In the first instance, the concessions should be offered to an Indian company, but even if a joint industrial concern is to be started in India with both Indian and foreign capital, care should be taken that the majority of the directors consists of Indians. It is thus alone that the interest of indigenous chemical industries can be protected."—*The Tribune*, Sep. 3, and Nov. 3, 1934.

In this connection the growth of soda industry in America may be cited: "In 1881 works for the production of alkali by the ammonia process was established by the Solvay Process Company near Syracuse, N. Y. As a result of protection afforded by import duties, American alkali manufacture increased by enormous strides, and not only completely divorced the United States from dependence upon English

alkali, but lost this country as an export market for the coarser sodium salts of English manufacture".—*Modern Soaps, Candles and Clycerin* by Leebert Lloyd Lamboon, pp. 3-4.

As a further instance of the intense selfishness which has all along characterised England's dealings with India, the Indo-Burma financial adjustment may be cited. Recently in the Legislative Assembly (March 26, 1935) a censure motion was passed by a large majority for failure of the Government to represent India's case before the tribunal set up in connection with the financial adjustment between India and Burma in the event of separation of the latter. Mr. B. Das observed that the debt share, payable to India was Rs. 100 crores while according to Sir George Schuster it was Rs. 70 crores. The fact of the matter was, said he, that Britishers wanted Burma to become their colony for exploitation, and wished India to pay for it. Speaking on behalf of the Congress Party, Mr. Das declared that they had no confidence in the Tribunal, more especially as the inclusion of Rowlatt was an insult to India, and also it was an insult that India did not possess financiers and economists, who could sit on the Tribunal. He demanded the Tribunal to be presided over by a Member of the League of Nations and that there should be no Britisher on it. On March 28, Sir James Grigg announced apologetically that the Tribunal had actually signed the Report!

It is not possible to overlook the financial aspects of Indo-Burma relationship. The conquest and annexation of Burma in 1886-87 was planned and achieved with a view to facilitate the exploitation of mineral and other resources of the country and to strengthen imperialist expansion in the East. Indians had, however, the privilege to pay the cost, not merely of war but also of the deficit in civil administrative charges in Burma for 15 years and more after the annexation. It is obvious that the wars waged in Burma had no relation to the requirements of Indian defence and were dictated exclusively by reasons of British policy. Nor can it be denied that the commercial advantages, including mining and other concessions in the annexed territories of Burma, were passed on

almost entirely to Britishers who have benefited the most by the control of petroleum, timber and rice of Burma, not to mention the ancillary credit and transport agencies. Mr. K. T. Shah has calculated in his annexure to the Report of the Congress Committee on the Financial Obligation between Great Britain and India that the aggregate claim of India on account of Burma would amount to nearly Rs. 100 crores made up of the following items:

	Crores Rs.
Cost of Burmese Wars from 1823-87 ...	18
Deficits in administration from 1886-7 made good out of Indian revenues	15
Pro-rata charges on Burma for 45 years' defences at Rs. 1 crore per annum ...	45
Pro-rata charges for the economic development of Burma, including interest on Burmese railways	22
TOTAL ...	100

The cost of the Burmese wars and the deficits in Burma's ordinary expenditure should not, in justice and equity, have been cast upon the Indian exchequer (*cf. ante* p. 170).

The underlying principle is that India is a "possession" and therefore any liberty may be taken with her finances and any wrong may be inflicted on her; and poor India's voice or cries must go unheard. Burma was annexed purely for imperial aggrandizement—for exploitation of her mineral wealth and timber. But India must bear the burden while her most urgent and crying needs *e.g.*, sanitation, removal of illiteracy, help to struggling industries and so on must be neglected.

II—DRAIN OF THE MINERAL WEALTH OF THE COUNTRY—AN ECONOMIC LOSS BEYOND HER POWERS OF RECUPERATION.

Retired consuls and pro-consuls are often directors, and members of the government, shareholders. The representatives

of the companies floated in England come provided with introductions from influential personages and the object of their benevolent mission is discussed at the dinner table and the preliminaries settled then and there without reference to the Assembly whereas the poor Indian competitor in the field has to dance attendance at the ante-chambers and gets but scant consideration, not to speak of encouragement and state help.

The reader may be reminded that the late Lord Birkenhead resigned his post in the Cabinet as Secretary of State for India and joined the I.C.I ; Lord Reading, ex-Viceroy of India, also has, I believe, interests in it. How men in high position who have eaten the salt of India betray their trust and help the growth of the industry of their own nationals may be exemplified by the incident noted below which has been narrated by a well informed correspondent in a daily (January 17, 1935) :

"The British always pride themselves on 'playing the game', but unfortunately where subject-peoples are concerned when they 'play the game,' it is only according to the rules laid down by themselves and with the dice heavily loaded against their opponents. . . . It is argued by British interests that they have established themselves in this country without any favour from the Government and without any privileges owing to their being members of the ruling race, although on other occasions they contend that British rule in India is not exactly a matter of philanthropy and that it is quite natural that Britishers should benefit economically owing to the political connection of their country with this. As regards shipping, it is interesting to note how the British shipping interests first established themselves. Martineau in his *Life of Sir Bartle Frere* describing the meeting of Mr. Mackinnon, the founder of the British India Steam Navigation Company, with Sir Bartle Frere states as follows :

> Mackinnon had gone out to India from Glasgow a few years previously, a young man, and with slender means, to take up a business in partnership with a friend who had preceded him to India. After a time they had come to own two steamers of six hundred tons each, trading from Calcutta to Burmah; more steamers were acquired, and the concern became the 'Burmah British Navigation Company.'
>
> Mackinnon had larger schemes in view, for which he needed a Government subsidy; but Calcutta officials in those days were not very accessible to the outside mercantile world, and it was

not till early in 1862, shortly before Frere left Calcutta, that a friend took him to one of Frere's semi-public breakfasts, and he was able to get a hearing from some one who could help him. He proposed, if a subsidy were granted to him, to establish a line of coasting steamers, calling at all ports of the coast from Calcutta round to Kurrachee. Frere, with his quick eye for a man of mettle, gave him and his proposal a cordial reception. 'You are the man I have been looking for, for years,' he said to him; and he took him to Lord Canning who gave favourable attention to his scheme. But the consent of the Bombay Government was also necessary, and this Mackinnon was unable to obtain till Frere went to Bombay as Governor in April, 1863. There he was the first person with whom Frere had an interview after being sworn in, and the result was that the subsidy soon after was granted. The 'Burma Steam Navigation Company' became the British India Company, and in time the steamers extended their trips to the Persian Gulf, to the East African Coast, to England and to Australia.

This great company took its first impulse—so said Sir William Mackinnon—from the encouragement given by Frere to a young and unknown man at his breakfast table in Chowringhee Road.

"It should be mentioned that at this time there were in Bombay alone four shipping companies registered as joint-stock companies apart from private ship-owners. But the Government method of giving subsidies out of Indian revenues at the time seemed to be at breakfast tables of high European officials where Indians could have no access just as to-day questions of economic interest vital to India are decided at Government House luncheons and club dinners"—(*cf.* Vol. I. pp. 347-60).

The Federation of Indian Chambers of Commerce, sitting at Delhi (March 30, 1935), has adopted among others the following resolution:

"The third resolution, moved by Mr. Manu Subedar, characterised the safeguards in the new constitution as unduly rigid and that the provisions against discrimination were of such comprehensive and sweeping character as were likely to cause abuse of power to the serious detriment of the country's industrial and commercial development. The proposals regarding shipping are completely retrograde and well-calculated as a bar for ever to the development of Indian mercantile marine.

After all, India is progressing and waking up and if her sons to-day are unable to work her own mines, their children

or children's children will be able to do so. If in the meantime all the mining rights and concessions in Burma, and Assam (Digboi) and other provinces of India proper are leased out to foreign exploiters nothing will be left for future generations. The late Mr. Gokhale often used to tell the present writer that the greatest injury which the British Government is inflicting upon this unhappy land—an injury which is beyond her powers of recuperation—is the slow but continuous exhaustion of her mineral wealth. As the statesman put this point with great clearness:

"In the case of the mining industry, for instance, it (*i.e.*, the development of the country's resources by English capital) means not merely that the children of the soil must be content for the time being with the hired labourer's share of the wealth extracted, but that the exportation of the remainder involves a loss which can never be repaired. Though the blame largely rests with them, we can well understand the jealousy with which the people of the country regard the exhaustion, mainly for the benefit of the foreign capitalist, of wealth which can never, as in the case of agriculture, be reproduced. It is, in short, no mere foolish delusion, but an unquestionable economic truth, that every ounce of gold that leaves the country, so far as it is represented by no such return, implies permanent loss.

"The exploitation of the mineral resources of the country by the foreign capitalist stand on a different footing; for in this case the wealth extracted is not reproduced, and, on the not unreasonable assumption that it would sooner or later have been exploited with Indian capital, may unquestionably be said to deprive the people of the country, for all time, of a corresponding opportunity of profit."—G. V. Joshi's *Writings and Speeches*", pp. 954-55.

The future historian of India will have to write a dismal chapter indicating that when her people at last woke up they found all the wealth in the bowels of the earth carried away by foreign exploiters and only empty dark caverns and subterranean vaults and passages left behind. The Indian people have absolutely no voice in the matter of the disposal of her mineral resources.

III—India *vs.* Persia in the Disposal of Mineral Wealth.

Let us now for a moment turn our attention to the history of the acquisition of the mineral wealth of a "Sovereign State"

—Persia. By a series of diplomatic understandings it was agreed between Russia and England that each will be given a free hand for the forwarding of their policy of aggression and assimilation in Persia. Ultimately it was agreed that Russia would have her "sphere of influence" in the north and England in the south in the littoral, the oil fields on the coast of the Persian gulf. By the Anglo-Russian condominium in Persia her sovereignty was nominally guaranteed, but Russia was all the same given a free hand to pursue her filibustering designs and make any constitutional government an impossibility.[1] Fortunately for Persia's political entity, the Great War intervened (1914-18). The Soviet Government "presented the Persians with an amazing document paralleling their offer to China, at about the same time. It provided diplomatic relations, restoration of certain territory to Persia, annulment of all previous Russian concessions, ... and cancellation of all the Persian debt to Russia. No negotiations were necessary to induce Persia to sign it. Even the important British oil concessions in the south-west were left unimpaired—perhaps discreetly."

Now that Persia is free to negotiate on her own terms it is interesting to note what modifications she has exacted for the renewal of the D'Arcy concession. A well-informed correspondent writes:

"Now let us analyse some of the important points of the new agreement. The first point gained from the Persian national point of view is that all workmen and technicians 'must' be Persians. The Company will pay an annual sum of £10,000 for the training of Persian students in Europe in oil technology. The selection of students will be made by the Persian Government. The usual stock-in-trade of the exploiting companies in the East, that the Easterners have not the executive ability or cannot be trained quickly, did not do.

[1] The reader who wishes to know the details may consult Shuster's *The Strangling of Persia*, ed. 1920.

"The Persian Government is entitled to inspect all operations of the Company in Persia, all plans and all technical undertakings. No hide and seek business will be tolerated. The Persian Government will choose a representative, resident in London, who will be entitled to any inside information. It will be recalled that the former Persian representatives in London were not allowed to inspect the books of the Company in the London Head Office, when discrepancies arose.

"The original concession to D'Arcy was for about 400,000 square miles. In the new agreement the area is limited to 200,000 square miles until 1938, when the area will be further reduced to 100,000 square miles. That is, in another five years the Persian Government themselves will be exploiting a large portion of the original D'Arcy concession."

A national government not only modifies the concession in its favour but takes good care to see that its own people may be so trained that in course of time they themselves may work the mineral resources, but in India the foreign exploiter not only seizes them without consulting the people's representatives but takes good care that the children of the soil may be kept ignorant of oil technology.

CHAPTER XXIII.

The Bengal Chemical and Pharmaceutical Works Ltd.—A Page from the Diary of 1893-94—Danger Ahead—Bengalis and Indians in General in Business—Causes of their Backwardness and Failures.

"If there is anything certain in human affairs, it is that valuable acquisitions are only to be retained by the continuation of the same energies which gained them. In the inevitable changes of human affairs, new inconveniences and dangers continually grow up which must be countered by new resources and contrivances. Whatever qualities, therefore, in a government tend to encourage activity, energy, courage, originality, are requisites of Permanence as well as of Progress."
—John Stuart Mill.

I now proceed to make further observations about the Bengal Chemical and Pharmaceutical Works Ltd. The younger generation of the present day expresses surprise and admiration at the progress of this concern. It seems to think that God Almighty one day called in aid the Divine Architect (Viswakarma) to construct a full panoplied works with its multifarious branches and let it down to this nether world by means of a golden chain—and Lo! there was the Bengal Chemical. People fail to realise that in this world of ours everything of solid worth is of silent, imperceptible growth of years of patient labour. Rome was not built in a day and was not born of the furor of momentary outburst. The vulgar estimate of a pyramid or of a temple at Madura in Southern India or of the rock-cut cave in Ajanta is that by some supernatural agency it rose all at once like the Prophet's gourd. I saw with wonder and admiration an exquisite figure of Siva in dancing (Nataraja) chiselled out of an entire piece of ruby at the temple of Chidambaram (Madras) as also a fragment of a statue by the hand of Phidias at the Louvre (Paris). Nor need I refer to that dream in marble—the Tajmahal. When we are lost in raptures over these master-

pieces we are apt to forget that each of these took years of ungrudging and patient toil before it attained to fruition.

I shall now narrate the experiences of a single day in 1893-94 (*cf.* Vol. I. Ch. VII). My friend Amulya Charan had secured an order for 100 lbs. of Aitken's Syrup from a brother Anglo-Indian practitioner, who used it as an ingredient for his patented 'blood-mixture'. This was the largest quantity of this preparation ever on requisition. I was overjoyed. I had in stock the concentrated liquors (Vol. I, pp. 108-9). But the difficulty was in getting two maunds of sugar for making syrup. In those days whatever myself and Amulya Charan could spare was ear-marked at the beginning of the month for the materials to be purchased in anticipation, and my expenses for "household" were met out of the sales of the preparations from day to day. It was by no means an uncommon occurrence to wait in the morning till the sale of a single phial of Aqua Ptychotis for the daily kitchen requirements. But the price of two maunds of sugar had not been anticipated. It so happened that my younger brother, who was an unpaid bazar sarkar (bill-collector and stores purchaser) had repeatedly called at the pharmacy of Dr. R. G. Kar at Shambazar two miles north of the premises for payment of a bill. The manager of the drug-store, feeling uncomfortable, had promised to clear off the next time he called. My brother was under the necessity of going on foot to Shambazar and thence to Burrabazar sugar depot (at least three miles off) and back again to our premises so that the syrup would be ready by the time I returned from the college. As this was a hot summer's day I felt the distance to be covered would be too much for a pedestrian journey all along. I, therefore, advised him to perform a part of the outward journey by availing of the tram car. But here a fresh difficulty arose. The fare was five pice; but only one anna could be scraped together and there was a deficit of one pice, which somehow or other was procured. To the present incumbents of the concern, who have more than half-a-dozen motor cars constantly plying, who command the services of

some 2,500 hands not to speak of the phone, such a contingency is unbelievable. I append here an advertisement drawn up by me from the widely circulated vernacular paper of those times, *The Sanjivani* (Nov. 3, 1894).

"Bengal Chemical and Pharmaceutical Works, 91, Upper Circular Road, Calcutta. With the help of Dr. Prafulla Chandra Rây, D.Sc. (Edin.) and the well-known medical practitioner Dr. Amulya Charan Bose, M.B., in this allopathic manufacturing concern some three hundred medicines have been prepared and are for sale. Our preparations are made according to the latest scientific methods. Price list on application. The name of only one is given below:

"*Syrup of Hypophosphite of Lime* for colds, coughs, catarrh, asthma, phthisis, bronchitis and other lungs-diseases: a never-failing remedy. It is sweet and agreeable to the taste and of beautiful rose colour. Trial of last two years has proved that because it is freshly prepared, its efficacy is superior to that of the imported article. The leading physicians of Calcutta are prescribing it."

My experience in connection with the Bengal Chemical and Pharmaceutical Works and other concerns gathered in the course of the last forty-two years entitles me to speak on the business capacities of the Bengalis in particular and also of the Indians in general. Elsewhere I have dwelt at length on the dismal and hopeless failure of the Bengalis in this line, especially of the college educated youths (Vol. I. p. 440). But this disease or incapacity is inherent in the Bengalis and hereditary. As I cast my eyes around I find several business houses built by the ability, activity and energy of a man of rare type almost crumbling to pieces, due to the stupidity and inertness and ignorance of his successors. The father, or founder was a man of uncommon type; he worked hard, did not spare himself and was not given to luxurious habits. He is anxious that his son should be "educated"; he sends him to college and brings him up as a "gentleman". The latter is not slow to imbibe habits of refinement which often means the ways of the idle rich. Nay, the father has a touch of pride

in him. He does not like that his son should be known in society as born of a grocer or tailor or cloth-dealer or jute merchant or a stevedore and so on.[1] Another defect in our national character is that the successful businessman wants to gather as much profit out of his concern as he can, with the result that he often undermines his health by overwork and denial of rest. His assistants—not only clerks but his agents in distant parts—are ill-paid. As long as the founder of the business is in good health and wide awake, matters go on favourably and prosperously. When, however, his health is impaired, he can not keep his eye on and has to depend on his assistants. The latter, generally poorly remunerated, seize the opportunity to line their pockets and when the "boss" closes his eye they rob right and left. His sons have been brought up in ignorance of business, have been taught only to live an easy life and to draw upon the profits of the concerns. Thus they are absolutely at the mercy of those who conduct their affairs. The business gradually goes to rack and ruin. A great drawback in our national character is that as soon as the founder of the concern dies, his sons or successors quarrel among themselves as to who should manage it; if one of the latter manages it for a time, his conduct is often not above suspicion. In a short time amidst bickerings and mutual distrust the business collapses.

On the Bombay side although they are far more efficient in business even there is a saying that in the hands of the third generation the business languishes or fails. The second generation often mismanages it but can live on credit and assets and thus anyhow staves off the evil day. My remarks so far do not apply to the Marwaris and Bhatias (Guzratis of

[1] Cf. "Old Jolyon looked at him. To-morrow he was going to that great place [Eton] where they turned out Prime Ministers and bishops and that, where they taught manners—at least he hoped so—and how to despise trade. H'm! Would the boy learn to despise his own father? And suddenly there welled up in old Jolyon all his primeval honesty, and that peculiar independence which made him respected among men, and a little feared."—Galsworthy: *On Forsyte 'Change.*

Burrabazar) ; their sons are early trained in the fathers' business, the latter not being college-educated take to it readily as fish to water and it is carried on successfully from generation to generation. This is still more applicable to the Boras and the Memons of Cutch who have for generations the hereditary instinct for trade in them; but unfortunately they are often illiterate—of course they know the 3 R's ; but thus far and no further. They are often millionaires but, as I have said elsewhere, of narrow outlook (*cf.* Vol. I. p. 452). The Bhatias, the Boras and Memons of Cutch have business operations throughout India, also in Hongkong, Shanghai, Kobe, Kyoto and in East Africa. Then there are the Sindhies of Hyderabad, who have not only spread over the above parts but often have branches in Paris and even in New York. The Parsis, and following in their wake the Guzratis (generally of the Bania caste) are more or less cultured and educated as in the case of the Tatas, Jamshedjees, Jeejebhoys, Camas, Wadias, Goculdas Tejpals, Thakersays, Purshottomdas Thakurdases and others.

The founders of big British Houses in Calcutta, Bombay, Cawnpore, etc., are seldom college-educated. But all the same being well grounded in the secondary education they manage to pick up all that counts for education *pari passu* with their colossal expansion of business as is evidenced in the case of a Mackay (Lord Inchcape), a Cable, a Yule, a Mackinnon and most others too numerous to mention. The continuity of the British firms is kept up because, I suppose, the chief has always his eye on his subordinates. His discerning eye picks up the most efficient and businesslike among them ; he slowly promotes them and entrusts them with responsibility and ultimately takes them into partnership. Thus the President of the Chamber of Commerce, or of the Trade Association, is equally at home in business as also in the intricacies of the stock exchange and currency problems.

With these premises I now commence to say something about the future of the Bengal Chemical. Somehow or other by a happy concourse of fortuitous circumstances it has

reached its present prosperous condition. Mr. Rajshekhar Bose, who has been a happy catch and who has been connected with it ever since it became a limited liability concern (1903), is a man of exceptional abilities. When he joined it he was a brand-new recruit with only bookish knowledge of an average M.A. in chemistry. He knew nothing of accounts and book-keeping and other important things in business matters, nor had he any knowledge of the world. But somehow or other gradually with its expansion, by a method of trial and error he fought his way upwards. He has a rare combination of the most conflicting qualifications—equally at home with the ledger and dealings with customer; an expert in chemical processes as also in chemical engineering and technology; also in devising designs for labels and in the modern art of advertising. Nor need I refer to the high position he occupies in Bengali literature. Mr. Bose has been lucky also in gathering round him a group of earnest, energetic and patriotic helpers and workers of strict probity ; so far so good. But somehow or other I am not so optimistic about the future. Mr. Bose on account of his failing health has been compelled to retire, retaining his connections with the firm only in an advisory capacity. No doubt all along good care has been taken to create a line of successors and departmental heads. But here the inherent defects of the Indian hereditary character come into prominence. The Anglo-Saxon has been for centuries a sea-faring, exploring, colonising as also a mercantile race. He delights in adventures and in courting dangers. Initial failures do not daunt him but only bring out his grit and resourcefulness. The result is that in every sphere of life and activity men of the right stamp are always available. When a successful man of business wishes to retire, he has only to advertise in the market, mentioning the assets and it may be the liabilities as also the good will, and the right sort of individual purchaser will offer favourable terms.

There is another difficulty. An export or import business, or jute or cotton mill is of a stereotyped nature and is run on in the same groove. Hence experts and managers to carry it

on may be always found. Not so a chemical and pharmaceutical industry like ours, with its diversified ramifications ; it is ever expanding its branches in the different provinces, it has now to encounter fierce competition from abroad including Japan. The biological and biochemical departments (including the serum and vaccine sections) have to be thoroughly up to date and *en courant* with the latest researches, which means that some of the experts have to be sent abroad almost every other year to pick up the latest improvements. This applies equally to the purely chemical and pharmaceutical sides. We cannot afford to rest on oars, for that means stagnation and death. The very essence of our business lies in continuous progress.

At present, as I have said above a band of enthusiastic workers, whole-heartedly devoted to the cause as also an enlightened directorate fully alive to the requirements of the case, have been luckily secured but unfortunately they have the failings and defects of their race and often fail to rise superior to them; and there is no knowing that such a happy combination will be ever forthcoming—or such recruits to fill up the vacancies in future.

There is another danger ahead about which I have to speak with hesitation. The Bengal Chemical is in some respects in advance of the average intelligence and enlightenment of our country. At the general meeting of the shareholders, although for years past, inspite of the trade depression and slump a dividend of 15% has been declared, some of the members raised a note of dissent to the effect that a bigger dividend or a bonus over the shares should be given as there is carried over a large reserve fund. They do not see or fail to see that this large reserve is only *on paper,* as a good part of it is actually used up in the expansion of the business *i.e.,* as working capital and unless it is so utilised fresh capital will be necessary and that will only redound to the reduction of the dividend. Moreover, there is the danger of over-capitalisation, for there are ups and downs in every undertaking and in bad season this tells heavily ; but human nature specially in India

is short-sighted. People seldom look ahead or take long-range views ; they are more concerned with immediate gains or interests. Two thousand years ago Æsop sounded the note of warning in his fable of the goose which used to lay golden eggs. Fortunately, the short-sighted shareholders are in the minority : but in future such men by canvassing may secure a majority, for it is comparatively an easy matter to appeal to the sordid instincts and cupidity of mankind. Like the Praetorian guards of Rome, who held the empire to auction to the highest bidder, they may be instruments of ruin to the concern.

The Bengali has been lacking in business instincts for generations past and it is humanly speaking impossible to bring about a sudden change in his mentality and angle of vision. Even if he is compelled to take to commercial and industrial undertakings he must go through the probationary period and encounter and face every sort of initial difficulty. But as I have said elsewhere he is for quick results and returns, and the qualities which go to the making of success in this line are against his grain.

I cannot conclude this chapter better then by quoting some portions of *The Perfectionist Experiment et Oneida Creek* even at the risk of laying myself open to the charge of being considered an egotist :

"In 1848 the Oneida Community was founded in America to carry out a resolution arrived at by a handful of Perfectionist Communists 'that we will devote ourselves exclusively to the establishment of the Kingdom of God.' Though the American nation declared that this sort of thing was not to be tolerated in a Christian country, the Oneida Community held its own for over thirty years, during which period it seems to have produced healthier children and done and suffered less evil than any Joint Stock Company on record. It was, however, a highly selected community ; for a genuine communist (roughly definable as an intensely proud person who proposes to enrich the common fund instead of to spunge on it) is superior to an ordinary joint stock capitalist precisely as an ordinary joint

stock capitalist is superior to a pirate. Further, the Perfectionists were mightily shepherded by their chief Noyes, one of those chance attempts at the Superman which occur from time to time in spite of the interference of Man's blundering institutions.

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"But an experiment conducted by a handful of people, who, after thirty years of immunity from the unintentional child slaughter that goes on by ignorant parents in private homes, numbered only 300, could do very little.

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"Yet their Superman himself admitted that this apparent success was only part of the abnormal phenomenon of his own occurrence ; for when he came to the end of his powers through age, he himself guided and organized the voluntary relapse of the communists into marriage, capitalism, and customary private life, thus admitting that the real social solution was not what a casual Superman could persuade a picked company to do for him, but what a whole community of Supermen would do spontaneously. If Noyes had had to organize, not a few dozen Perfectionists, but the whole United States, America would have beaten him as completely as England beat Oliver Cromwell, France Napoleon, or Rome Julius Caesar. Cromwell learnt by bitter experience that God himself cannot raise a people above its own level.

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"Until the heart and mind of the people is changed the very greatest man will no more dare to govern on the assumption that all are as great as he than a drover dare leave his flock to find its way through the streets as he himself would."[2]

Another serious defect in our national character and upbringing is that the founder of the business packs it with his sons, nephews or sons-in-law without previous apprenticeship and without taking into consideration their merits places them

[2] *Man and Superman* by Bernard Shaw.

over the heads of subordinates who have served the firm for years. This sort of nepotism naturally creates ill-feeling and jealousy and the former is thus deprived of the loyal co-operation of the latter.

I have before me *The House of Mitsui, a Record of Three Centuries: Past History and Present Enterprises* (Tokyo, 1933). It is a most remarkable record in the world's history of industrial progress—unique of its kind. I make some extracts from it to show that the original founder and his descendants have taken early precautions in avoiding the reefs and shoals which beset the path of successful continuation of business:

"The power of the House to survive the vicissitudes of two centuries and emerge with the ability to take full advantage of the opportunities of the new age was due in a great measure to the wisdom with which Hachirobei had organised it.

"On the basis of Hachirobei's will the constitution for the family and firm was framed. It has been modified to meet the needs of changing times, but the spirit of the inherited family code remains the essential core of the constitution, which to-day governs the Mitsui family and firm with its worldwide interests, and the Omotokata, the central administrative body, has become the incorporated Mitsui Gomei Kaisha, the Mitsui Partnership Company. Its partners are the heads of the eleven Mitsui families and no others, and its directors are chosen by them. Its functions to-day may be concisely described in modern terminology as those of a holding company. In the Gomei Kaisha all the far-flung cords of the Mitsui enterprises—banking, trading, mining, trust and insurance business, shipping and shipbuilding, warehouses, etc.—come to a common centre under the united control of the eleven families. At their head is the direct descendant of Hachirobei, the head of the main family.

* * * * * *

"Thrift enriches the house, while luxury ruins a man. Practise the former but avoid the latter. Thus lay a lasting foundation for the prosperity and perpetuation of our House.

"The essential of a business enterprise is to employ men of great abilities and take advantage of their special talents. Replace those who are aged and decrepit with young men of promise.

"Make your sons begin with the mean tasks of the apprentice, and, when they have gradually learned the secrets of the business, let them take a post in the branch houses to practise their knowledge.

"Sound judgment is essential in all things, especially in business enterprises.

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"A profit-sharing scheme gave certain responsible classes of employees a direct interest in the prosperity of the firm.

"Chonin Koken-roku," by Mitsui Takafusa (1684-1748), is a record of his father's personal observations of the vicissitudes of big merchant families in Kyoto and Osaka, with the theme that great fortunes will develop the symptoms of decline when they are inherited by the third generation, which knows little or nothing about their making.

"On occasions of natural calamities, whether famines, conflagrations or plagues, the Mitsuis have been among the foremost in providing funds and organizing relief.

"In 1932 three million yen were given to the nation for the relief of distress during the trade depression. In November, 1933, as these pages are going to press, it is announced that the Mitsui family has decided to devote thirty million yen to the establishment of a foundation for the promotion of public welfare and national progress. The foundation proposes either to conduct or subsidise scientific research, technical experiment, cultural institutions, social welfare work in cities and enterprises intended to promote the well-being of agricultural and fishing communities."

CHAPTER XXIV.

VERDICT OF HISTORY—CONCLUSION.

"Suffer no man and no cause to escape the undying penalty which history has the power to inflict on the wrong"—LORD ACTON.

In the preceding pages I have tried to present my readers with a brief survey of India in the educational, economic and social spheres and lest I may be thought partial I have fortified myself by quoting the opinions of English writers competent to speak on the subject. In short, the present volume and its predecessor may be taken as a compendium of India under British rule.

It will be seen that there is no such thing as a policy underlying the administration—it lives from hand to mouth—any how balancing the budget—and in this the local Governments are vying with the Imperial with the result that the back of the peasant, who after all is the chief sufferer and who in the long run pays the piper, is broken. Thus while, on the one hand the burden of the Imperial taxation which makes even the daily necessaries of life costlier as it imposes crushing indirect taxation in the shape of import duties on cloth, sugar, salt, kerosene as also enhanced railway fares, postage stamps, etc., is getting heavier, on the other hand the provincial Government's demands have been persistent and ever-increasing. It does not hesitate to squeeze as much as it can out of the luckless starving people. Over and above these items, the poor long suffering ryot has to bear local rates as well, *e.g.* chowkidary (village watchman) and ferry rates and road cess (the ultimate burden of the latter falls on his shoulders). Under the New Reforms (Montagu-Chelmsford) Bengal has suffered most, with the result that her education, sanitation and various other nation-building projects have been kept in abeyance.

Bengal which played the leading part in the foundation of the British power—which supplied millions and billions of crores to the coffers—which even now contributes the largest

amount to the exchequer—is the chief sufferer as has been shewn.[1] She has been particularly penalised; some of her richest and most salubrious slices of territory have been torn from her and added to Behar and Assam and she has been left to stew in her own juice as best she can. Hers has been a cruel fate. The most malarious and populous province in India has got all the paraphernalia of a gorgeous administration with the pay of the executive councillors and ministers, outstripping all other provinces as befitting her "premier" position. But she has got the least amount to her share for education, sanitation, irrigation—in fact, for all the nation-building departments.[2]

Again it has become almost customary with the British writers to claim all the credit for the introduction of Western education in India. Even such a pro-Indian administrator as Sir Henry Cotton coolly and condescendingly remarks not without conscious pride: "The people of the country enlightened and educated by ourselves. . . . ." (Preface to *New India*—1886). I have attempted to prove that this assertion or claim, is, at best problematical—the initiative and stimulus for Western education was due to Ram Mohan Roy (ante p. 12 *et seq.*). Even at the present day *i.e.*, after the lapse of a century and three quarters, the main burden of secondary, college and post-graduate education is borne by the people themselves.[3]

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[1] Vol. I. pp. 428-39.

[2] The following quotation from the *Statesman's Year Book* for 1934 will show, at a glance, Bengal's sad plight as compared to some other major provinces.

Province.	Population.	Revenue.	Expenditure.
Madras	47,193,602	16,45,01,000	15,82,24,000
Bombay	26,398,997	14,92,73,000	15,10,74,000
Bengal	**51,087,338**	**9,42,73,000**	**10,82,21,000**
Punjab	24,018,639	10,49,32,000	10,13,97,000

[3] Rai Harendra Nath Choudhury in his brochure, *The New Menace* which is expected to be out in a few days shows that "the Bengal authorities contribute only 16 per cent. of the cost of secondary education; while in Madras it is 23 and in U. P. 51 per cent" (pp. 8-9). Also, at the Annual Convocation held on March 2, 1935, the Vice-Chancellor of the Calcutta University, in the course of his address, points out that

In these days of rapid transport and transmission of news you can no more keep out the exchange and traffic in the latest social, economic and political trend of thoughts in the west than arrest the progress of the trade winds. In fact, "in the traffic of ideas it is no longer possible for any one of us to live for himself alone, but all nations are members, one of another." All the Sovereign States in the near and far East—in Turkey, Persia, China and Japan—are in a state of ferment. In Japan the awakening began in the late sixties and early seventies. What marvellous progress has been achieved in the land of the rising sun need not be recounted here ; some references to it have been incidentally made in the proper places.

When one feels tempted to contrast the fate of India with those of the above-named countries he is filled with gloomy despair. Our forebears had high hopes of the destiny of our land ; she was the first to be brought under the direct sway of the most progressive country in the world—the country of Shakespeare and Milton, of Cromwell and Hampden, of Bacon and Newton, of Burke and Wilberforce. When I was a child in the lap of my mother I was fed with anecdotes of Queen Victoria who was represented as the very fountain of beneficence, how under her benign rule India would be raised once more to her pristine glory. But alas, as time wore on, the spell was broken and all the bright expectations have been one by one dashed to the ground. Disillusionment has come.

The part which India played during the Great War has already been hinted at (Vol. I, p. 232). As I am giving the finishing touch to this last and concluding volume I have before me *War Memoirs of David Lloyd George*. In the volume devoted to 1917 I come across some remarkable passages :

about Rs. 27 lakhs represented the income of the University out of which Rs. 18,65,000 or a little more than 69 per cent. represented the income from fees and other sources, Rs. 3,65,000 or nearly 14 per cent. was derived from interest on endowment, and Rs. 4,68,000 or about 17 per cent. received from the Government.

"Before the end of October, 1916, the Dominions had raised 673,808 men for the service of the Empire in the War. India brought this figure to well over a million. Had it not been for the readiness with which Dominion and Dependency sprang to our aid in the lean years of 1914-1915, the Allies would have been hard put to it to pull through before Italy came in, and at a time when the forces at the disposal of the Central Powers were at their best.

"The Indians helped us to defend the waterlogged trenches of Flanders through the miserable winter of 1914—1915 and contributed to our victories in Mesopotamia.

"In noting the amount of care and caution bestowed on the question of Indian representation at this gathering, it must be borne in mind that hitherto India had not participated in the Imperial Conferences. . . . India not being a self-governing Dominion, was at that time outside the purview of the Conference Constitution. . . . There was, therefore, no authority by which India could be invited to an Imperial Conference, and no understanding with the Dominion Premiers to permit of such a new development. But India had made a large contribution of men and money to the carrying on of the War, and her troops were fighting alongside white soldiers and against white enemies. This fact had created a new self-consciousness among the Indians that showed itself in a demand for greater recognition, and it also made consultation with them about the further conduct of the War just and desirable. Hence the Imperial Conference of 1917 was summoned on a special basis, outside the official constitution. The representation of India in the Imperial War Cabinet was the beginning of the open recognition of India's new status. The precedent was followed in the conferences and discussions of 1919 regarding the peace settlement, and since then India has had her place in every Imperial Conference. The two Imperial Conferences of 1923—the regular Quadrennial Conference and the special Imperial Economic Conference —found India's representatives at the table alongside the Dominion Premiers."

Lord Willingdon, who was then Governor of Bombay, wrote to Mr. Lloyd George dated 22nd January, 1916.

"The Indian's point of view is 'you English have educated us. You have brought us to an intense desire to look after ourselves: when you want us you call us fellow citizens of a Great Empire, but when it comes to business you give us nothing but "concessions." We love our country, we want you to give us a real chance of doing something for it.'

"The Englishman replies: 'You are not ready for any more. We must have efficiency in our administration, and you can't come in

and really help us administer until you can show more character and honesty.'

"But the Englishman will not realise that the Indian can't learn unless he is given a chance to do so. Of course, it is true that the advance of the Indian means *the gradual disappearance of this great Civil Service out here,* but that, if the Indians are given a real chance to progress, is inevitable. I only write this outline of view to ask you to keep in mind this great country after the War is over. India has done her part nobly during the War, and while she asks for nothing because of that, I think she deserves to be generously treated. It is such an opportunity for a statesman to bind, I believe for long years, this great people in the bonds of amity and Imperial Unity that I hope you may remember this outburst, for the question is one of real Imperial concern."

In a second letter, dated Bombay 10th December, 1916, Lord Willingdon pathetically pleads for India.

"It is, I know, impossible for you to have much time to consider the future policy of this country, but I do trust that you will call to mind a letter I wrote to you many months ago suggesting that our policy should be conceived in a really generous spirit, for India has done, is doing, and will continue to do her part. It is, I am certain, a magnificent opportunity for securing the faithful loyalty of India for all time, to give her substantial advance and to give it generously. We must run a certain amount of risk in so doing, but I believe the risk should be run and I am confident the result will be satisfactory."

Professor Ramsay Muir observes :

"In India the political agitation, which had been afoot before the War, was stilled; and forces far greater than India had ever before put into the field saw service in France, in Palestine, in Mesopotamia, and in China. . . . Moreover, India could not but feel that, having played so great a part in the war, her claim was greatly strengthened not only to be consulted through the British officials who conducted the government, *but to be recognised as a distinct community, and to be endowed with the autonomous rights which other parts of the Empire enjoyed.* Thus the war directly quickened the nationalist movement both in India and in other parts of the Empire.

"In the Peace Conference, delegations from the Dominions *and from India* were present, not merely as elements in a British Empire delegation, but in their own right; and they signed the Treaties as independent powers. When the League of Nations was constituted, the Dominions

and India appeared again,[4] though in a somewhat modified way: the British Empire as a unit became a permanent member of the council; but Canada, Australia, New Zealand, South Africa and India became members of the Assembly as distinct powers.

"Thus the war, which displayed so powerful a loyalty among the members of the Empire, has been followed by a very remarkable relaxation of the bonds which hold them together. The Dominions claim, and exercise without protest, the right of appointing ambassadors of their own to foreign powers: there are Canadian and Irish ministers at Washington. They claim, also, the right of negotiating treaties independently with foreign powers: South Africa has concluded such a treaty with Germany. Britain, on her side, has recognized this progressive disintegration of the Empire as political unit.

"The Dominions and India have shown no signs of readiness to depart from the policy of self-sufficiency which they have pursued, or to admit British goods which compete with their own products. The dependent empire owes its prosperity largely to the fact that it is able to trade freely with all countries, and other trading nations would resent any departure from this policy; moreover, many of these colonies, especially those under mandate from the League of Nations, are bound by treaty to give equal access to all traders. Even if these difficulties could be overcome, there are many who believe that if the British Empire were to turn itself into an exclusive fiscal unit, it would become a cause of friction and war instead of a cause of peace, and that the adoption of the policy of self-sufficiency and exclusion on this gigantic scale would be a disaster for the world; while there are others who believe that Britain herself cannot safely take the risk of sacrificing the two-thirds of her trade which is carried on with foreign countries in order to develop the one-third which is carried on with the rest of the Empire."—*The Political Consequences of the Great War.*

Thus India was by implication at least raised to the status of a Sovereign State—an equal partner in the British Empire

[4] "Forty-five sovereign states were scheduled in the treaties as Original Members of the League." On this score India as a member of the League has been made to contribute the huge sum of Rs. 12 lakhs (approximately) annually since its entry into this envied position of a "Sovereign State." But here again British diplomacy steps in: India is *only a dependency tied to the wheels of the Imperial chariot.* The Indian representative is chosen not by the Assembly but by the Viceroy, or the Secretary of State for India and he is thus a creature ever ready to vote for his master! Thus England secures one additional vote at the expense of India.

and under the Montagu-Chelmsford Reforms she was granted within certain limits fiscal autonomy so as to help her to build her own industries. But all these have turned out to be mere moonshine. The gushing outburst of gratitude soon began to evaporate and India was again made to realise that she was only a subordinate branch of the Empire. She was only made to pull the chestnut out of the fire. The Englishman has now a conveniently short memory; he contrives to forget all past obligations, and as the immortal bard has it.

> "—When he once attains the upmost round
> He then unto the ladder turns his back,
> Looks in the clouds, scorning the base degrees
> By which he did ascend."

No wonder, India has been filled with disheartenment and frustration.

Mr. Ramsay Macdonald as seen elsewhere was so impatient that he would not wait years but in the course of a few months would grant India Dominion Status. But by and by the memories of statesmen began to be short and they racked their brains to wriggle out of a situation to which they had committed themselves in a moment of forgetfulness. Mr. Lloyd George was the first to reveal himself in his true colours. The great civil service, which according to Lord Willingdon, was to disappear as an anachronism, was to be given a fresh lease of life, as it was (according to Mr. Lloyd George of latter days) the "steel frame" of British rule. By a curious irony of fate Lord Willingdon who as Governor of Bombay was pleading for poor India now sat on the viceregal throne and he was naturally sent for for consultation during the Joint Parliamentary Report so that British statesmen should not be deprived of his valuable advice. As a result of the collective and concentrated wisdom of Westminister, India is going to be blessed with a constitution, which gives only the shadow of autonomy leaving the substance intact in the hands of the Britishers. Hypocrisy, thy name is statesmanship.

I have quoted just now Prof. Ramsay Muir, writing in 1930, but since then under the statute of Westminister, 1931,

the Dominions (*e.g.* Canada, the Irish Free State) can establish relations with foreign countries without reference to the colonial secretary and now the question is raised: "Is the British Empire dead?"

"The 'British Empire' is now only a time-worn phrase," says a well-known journalist in England, "and it does not as such exist now; actually the British Empire is dead.

"Australia has chosen for her first Governor-General as Australian and a Jew—the man who is still a commoner. He was chosen by the Australian people without reference to Whitehall.

"Now Canada has chosen its first commoner as the Governor-General —chosen by the people. This is symptomatic of the great changes that have taken place and are even now taking place.

"Only the Crown Colonies and the Indian Empire, as we still call it, are run from Whitehall."

In proportion as the bonds are loosened, the grip over India is tightened, and in the New Constitution eighty per cent. of the revenues in the central government (*i.e.* military and the railway budget, the civil service recruitment etc.) is non-votable and of the remaining ten per cent. the Viceroy by his power of certification is the absolute master. In this way the economic and political bondage of India is to be perpetuated and the numerous safeguards and reserved powers in the hands of the Viceroy cut at the very root of autonomy and make India forever safe for exploitation by British manufacturers and check the natural expansion of Indian industry and commerce. It constitutes in fact the severest indictment of British rule, which after a period of 175 years votes the people in *status pupilaris* which they are never to outgrow. In the blind intoxication of power they fail to see that such a constitution converts the provincial Councils and the Central Assembly into so many mock debating clubs and is an insult to the political consciousness and the self-respect of the people.

This is no constitution but *autocracy in reality*—though under the camouflage of constitution—which is going to be thrust upon India against her consent. The essential thing in a constitution is the control over the purse but under the new regime the spenders of the taxes will have the key of the chest

while the poor tax-payers will have the privilege of filling it. This represents the political sagacity of a scheme conceived, hatched and nursed in Westminister. It would perpetuate the profligate waste of public money and characterise the Indian administration as a veritable rake's progress.

A striking contrast is presented by the attitude of British statesmen towards Ireland and India. After the failure of the "Black and Tans" method, they were in a hurry to come to terms with the Irish leaders and Mr. Winston Churchill, who was then a member of the cabinet, was especially anxious to enter into peace negotiations.

The story goes (and I have it on reliable authority) that a leading British politician chaffingly whispered to Mahatma Gandhi when he attended the Second Round Table Conference that John Bull had never been known to concede any political rights to a subject nation and that it was only when he found the situation growing too hot for him that he was for conciliatory measures.

I hold that rule to be the most efficient and beneficial in the long run, the ulterior aim of which is the welfare of the people committed to its charge, which takes good care to raise its intelligence and initiative and teaches it self-help. Judged by this standard British rule must be considered a failure in many essential respects, for the trend of development in India has been in the opposite direction. Far from helping India to stand on her own legs, it thwarts every attempt in this direction, it sets class against class—the Hindu against the Moslem, the high castes against the depressed classes, so that India's solidarity may not ever be attained. With this end in view British policy has adopted the most retrograde and reactionary methods. I have been at some pains to point out that in order to pursue this reprehensible object the most disreputable men—men who will not hesitate to barter their country for their own selfish purposes—have been taken under its protective wings. The majority of cultured and politically conscious Hindus and Moslems have recorded their protest against this short-sighted policy in no uncertain voice. Again the All-Bengal Depressed

Classes at their recent meeting have unanimously rejected the Prime Minister's Award as intended to "vivisect" the Hindu society, and while patriotic, selfless Indians are trying their utmost to obliterate the evils of the caste-system it was reserved for the British Premier backed by the diehards to place difficulties in the way.

A foreign visitor on landing on the shores of Bombay or at Calcutta is apt to be dazzled by the stately edifices and palatial hotels ; but if he has discerning eyes he will not fail to notice, side by side with the luxurious mode of life of a few sybarites[5], grinding poverty and harrowing misery of the majority of the dwellers in the city. In fact India is a land of strange contrasts. A few *raises,* merchant princes, land-holders and highly paid officials adorn one side of the picture, while on the obverse starving, shrunken figures of the masses who mainly contribute the taxes obtrude themselves. I have just returned from a long summer tour in the southern portion of the district of Khulna. In every village I found the *Bhadrolok* class in destitution—their lands mortgaged—unable to command credit—living in a state of semi-starvation. The peasantry is equally destitute and sunk in despondency without a ray of hope ; add to it the water famine and the tale of misery is complete. In North and West Bengal the situation is still worse.

In 1880, *i.e.* more than half a century ago, Sir W. Hunter speaking at Edinburgh stated that one-fifth of the people of India did not know the pleasures of a full stomach. Sir Robert MacCarrison, Director of Nutrition Research Institute, Coonoor, on the eve of his retirement (March 7, 1935) made the authoritative statement that "mal-nutrition is the greatest of the disabilities that beset India." And yet such a people are made to support the huge military burden and the most extravagantly paid Civil Service and the costliest administration.

In every country high hopes and aspirations float before the imagination of the youth. But in India from the dawn of

[5] In Calcutta this applies mainly to the European inmates in the Chowringhee quarter *i.e.* the "West End."

their intelligence our youngmen have no such vision. The Army and the Navy are to him a sealed book. Careers which are open to the manhood of a free people, they are debarred from. At the present moment 2000 youngmen, some of them highly educated, representing the flower of our people are in internment—detained without trial. Blank despair born of the economic and political condition of the country has overtaken them as also thousands and tens of thousands of other youngmen. Our Government does nothing in the way of opening up honourable careers for them. It has taken good care to slam every door of opportunity for our youth. On the contrary it has shown undue solicitude in obedience to hints and mandates from Whitehall not only to ruin our cottage and home industries but present innumerable obstacles in the path of our attempt in the way of starting large-scale industrial concerns. Indian interests have always been subordinated to those of the dominant power. May be some of our youngmen took to wrong methods for winning *Swaraj*, but surely a government worth the name have a duty to perform. You cannot bring an indictment against an entire people for the sake of a few erring youths.

It has been shown that "the foreign manufacturer has used the arm of political injustice to keep down and ultimately strangle a competitor with whom he could not have contended on equal terms." True we have the Departments of Industries, Agriculture, etc. but they are mere spectacular shows. They are so many white elephants and serve as mere eye-wash.

Foreign rule is always inimical to the true interests of the people. *Our country first—right or wrong* is its guiding principle—and hence the tragic consequences and the mockery of the new constitution. Never in the history of the world has such a ridiculous and humiliating spectacle been offered to the world's gaze. In their selfish blindness our rulers have failed to realise that the willing acceptance by the people for whom a form of government is designed constitutes the best and only guarantee of its successful working. But as Professor Ramsay Muir regretfully observes:

"In the post-war years there has been a perturbing deficiency of first-rate men, men eager to shoulder responsibilities and to face up to difficulties. This has been perceptible in every sphere of life : whether in politics, in business, or in the arts, few great reputations have been made since the war, and the pre-war figures still dominate the scene."

If such is the state of things in England, if bankruptcy in statesmanship is so perceptible, no wonder that the bureaucracy in India steeped to the marrow in worn-out traditions and antiquated notions should fail hopelessly in its task. It fails to diagnose the root-cause of the discontent and applies symptomatic remedies. It can never think of conciliatory measures but looks for its guidance to the Hebrew scripture: "My father chastised you with whips, but I will chastise you with scorpions." Coercion, more coercion,—repression, more repression, is the patent medicine it can prescribe. Vengeance, and not pacification, is writ large on its banner. Surely this is not sound statesmanship.

Charles Gavan Duffy, a leader of the "Young Ireland" movement is tried for sedition and treason-felony ; he emigrates to Victoria and in due course rises to be her Prime Minister and a trusted and honoured British citizen. General Smuts was given the supreme command of Republican forces during the Boer War. When peace was restored the conciliatory measures of Campbell-Bannerman converted him into a loyal British citizen. During the great war he commanded troops in British East Africa and fought against the Germans. So invaluable were his services that he was appointed a member of the War Cabinet. The Dutchman became an indispensable colleague and is now regarded as the most far-sighted of the British statesmen. The Mogul Emperors including Aurangzib followed the same policy and thus their rule was broad-based upon the people's interest and goodwill. Our self constituted *trustees* have taken good care to provide against future contingencies by keeping their ward in such a state of bondage that it may never assert itself or stand on its feet. The people are kept in dense ignorance and illiteracy as an incohate mass. It means, British interests first and foremost and Indian interests in the background. As the philosopher has it:

"Concerning the materials of seditions. It is a thing well to be considered: for the surest way to prevent seditions (if the times do bear it) is to take away the matter of them. For if there be fuel prepared, it is hard to tell whence the spark shall come that shall set it on fire."

But in India the oft-repeated lessons of history are ignored. What infinite possibilities and potentialities slumber in the bosom of a people! Most heart-rending economic distress coupled with political discontents constitutes the breeding ground for sedition. Our rulers are averse to removing the root-cause. They forget that coercive measures only drive sedition underground.

It never occurs to our rulers to remove the present discontent because that will lead to the ultimate abrogation of the vested interests of the Civil Service. In every country the services exist for the people, but in India the people exist for the services. The payers of the taxes suffer grievously and the spenders and enjoyers of the taxes, as John Bright said, have it all their own way. Whether all this has been done purposely to emasculate her and leave her behind in the race for progress is more than I can pretend to know. It is for the future historian to draw his inferences and pass his verdict.

Then along with the sinister attempts to create among the Indian people as many hostile camps as possible, all the energies of our rulers are now being diverted and taxed to play off one race or one creed against another. The seeds of dissension are being scattered broadcast, making it impossible for India to rise again as a nation. Indians, at any rate those who are politically conscious, looked forward to the fulfilment of the prophecy of Macaulay made a little over a century ago (1833):

"It may be that the public mind of India may expand under our system till it has outgrown that system; that by good government we may educate our subjects into a capacity for better government; that, having become instructed in European knowledge, they may, in some future age, demand European institutions. Whether such a day will ever come I know not. But never will I attempt to avert or to retard it.

Whenever it comes, it will be the proudest day in English history."

The "proud day" must be postponed to the Greek calends. Indians were asking for bread but have got stones ; instead of securing the good will and active co-operation of the people, instead of applying healing balm our rulers have kept the sore open and pestering. An opportunity which rarely occurs once in the life-time of a nation has been lost. As the American poet has it :

"Once to every man and nation
comes the moment to decide,
In the strife of Truth with Falsehood,
for the good or evil side :

* * * *
* * * *

Then it is the brave man chooses,
while the coward stands aside,
Doubting in his abject spirit,
till his Lord is crucified."

Unfortunately, brute force and sordid instincts have triumphed over moral force. For the dominant race there was much room for magnanimity, for the subject race none. History will not fail to record that here not only was a grand opportunity for Britain to win a place in the grateful "heart of Aryavarta" missed, but a tremendous abuse of power and authority took place.

"O, It is excellent
To have a giant's strength : but tyrannous
To use it like a giant.

* * * *

O, but man, proud man!
Drest in a little brief authority
Most ignorant of what he's most assured,
His glassy essence,—like an angry ape,
Plays such fantastic tricks before high heaven,
As make the angels weep."

APPENDIX.

Note on Communalism (p. 265).

The following short extract from Graham Wallas' *Human Nature in Politics* (Ed. 1910, p. 203) shows the writer's remarkable foresight as it was penned quarter of a century ago.

"And, if half of what is hinted at by some ultra-imperialist writers and talkers is true, racial and religious antipathy between Hindus and Mohammedans is sometimes welcomed, if not encouraged, by those who feel themselves bound at all costs to maintain our dominant position."

What has been written in Chap. XIV finds an admirable echo in the recent contribution by a cultured and patriotic Moslem. The writer realises that the interests of the Hindus and Moslems are identical and they must sink or swim together.

"When I was in Germany, often and anon, the question was put to me by almost all sections of the German people ranging from highly learned professors of the university down to a common worker as to why, we, the Hindus and the Mohammedans in India, continually fly at the throat of one another. It might be mentioned here, thanks to the British Press, however little the foreigners might know regarding our struggle for freedom, they are always informed in details, I would rather say, in shamelessly exaggerated details, about the Hindu-Mohammedan feuds in India. And the most unfortunate thing is, that there is no Indian organisation to counteract this sinister propaganda of the English Press. The writer tried his best to expose the British Press for carrying on such sort of propaganda against India in his article 'Die Englische Presse und Englische Politik in Indien' published in the *Kieler Neueste Nachrichten*, a daily paper of Kiel. The necessity of press activity in foreign countries to disseminate truth about India and to give a deathblow to the insidious propaganda of the interested party cannot be sufficiently emphasised. The late Vithalbhai Patel of revered memory realised it and hence his princely donation of one lac of rupees was for the purpose. Considering the enormity of the task, the amount is insufficient but a beginning can be made and in course of time, I hope, further contributions would be forthcoming from patriotic Indians to supplement the same. Nobody can belittle the great importance of a world-opinion now-a-days.

"However, seeing the German people very much interested in this question, I took to pen and paper and my first article was published in the *Kieler Neueste Nachrichten* under the caption "Hindus and

Mohamedaner." Little did I think nor could I dream even at the time that the seeds of Hindu-Mohammedan dissension which were being scattered all over India at the instigation of the foreign rulers and which were finding expression here and there in sporadic outburst of riots between the illiterate and ignorant masses of the two communities, would ever grow into giant trees spreading their gloomy shadows over the whole national life of India and stunt its healthy growth! I could never imagine that men having any education worth the name, can also, like the illiterate, ignorant masses, become victims of the policy of 'Divide et impera' of the foreign bureaucracy. There is absolutely no doubt that the Hindu-Muslim problem is a British Government's creation, pure and simple, of recent origin and synchronises with the starting of the National Movement in India. I do not dispute the existence of any ill-feeling between the two communities at the early period of the Mohammedan rule but what I would like to point out is, that this was not because one party was Mohammedan and the other Hindu but because the one was the conqueror and the other conquered. At the outset, it was quite natural that the Hindus resented the domination of the foreigners. The Mohammedans were, after all, foreigners, when they first came to India. But they did not remain foreigners. They were not birds of passages like our British rulers, who come over to India to gather as much money as possible and then fly back to their native country and spend the rest of their lives in comfort and luxury at the cost of poor tax-payers of India but they permanently settled down in this country and became a part and parcel of her population. They realised that their happiness and misery, their joys and sorrows, their life and death were indissolubly bound up with those of their neighbours and fellow-beings, the Hindus. Hence they (Mohammedans) could not but live in peace and amity with them (Hindus). And the Hindus and the Mohammedans did actually live side by side as brothers for several centuries. The Mohammedan rulers founded village schools, dug wells and tanks, made canals for irrigation purposes, built roads and did many other works of public utility. And the villages where the majority of Indian population lived and still live, enjoyed all these blessings of the Mohammedan rule. From time immemorial every Indian village was a self-sufficient unit, having its cultivators, weavers, carpenters, goldsmiths, blacksmiths and artisans. In short, all the useful members which a society requires for its upkeep and prosperity including its headman and Panchayat to settle any dispute that might have arisen there. Practically it was a miniature republic in itself and it remained so, completely uninterfered by Mogul, Pathans, Syeds or whoever might have come, till the

Britisher, came and robbed it of the independence which it enjoyed for ages together. A large portion of the Hindu urban population which was relatively small, could find employment in the State. All the high governmental posts were thrown open to the Hindus. 'Mansingh, Todarmull and others found that they enjoyed a consideration under the Mohammedan Sovereign far greater and wider reaching than that which would have occurred to them as independent rulers of their ancestral dominion', says Malleson in his *Akbar and the Rise of the Mughal Power*. According to Stanley Lane Pool, 'Hindu Generals and Brahmin poets led Akbar's armies and governed some of the greatest provinces.' Emperors and Kings were Mohammedans but the administration of the country rested to a great extent in the hands of the Hindus. Under the circumstances, there is no wonder, that the feeling of antagonism which originally existed between the two communities vanished completely and gave place to a feeling of sympathy, friendship and brotherhood. The relation between these two great communities became all the more cordial when inter-marriages were introduced not only in the Royal families but also among the aristocracies. Who can say with certainty that they were not imitated by other classes of people too? History keeps no record of commoners. But for the short-sighted bigotry of Aurangzeb the Hindus and the Mohammedans to-day would have been fused into a powerful homogeneous nation and spared the unhappy lot of being counted as a subject race.

"Closely associated as they were, for centuries, it was quite natural that the Hindus adopted many of the manners and customs of the Mohammedans, who in their turn did many of theirs (Hindus'). The writer still remembers afresh how his late grandfather, who lived in a village, used to give all the members of the family as well as all the servants new clothes during the Durga Puja Festival and how we, all the Mohammedan children clothed in new clothes used to go with great joy and enthusiasm to the neighbouring Hindu and were treated with sweetmeats by our Hindu neighbours. He has also not forgotten how the Hindus of the neighbouring villages used to come to their village to take part in the Moharrum Festival. My grandfather took so much consideration of the religious feelings of his Hindu neighbours, (though the number of the Hindus in the village is very small) that he prohibited the killing of cows within the boundary of his village. And his wish is still respected although he is over twenty years dead. The writer had the honour of visiting the shrine of the Mohammedan Saint, 'Khawja Mainuddin Chisti' in Ajmere, generally known as 'Khawja Sahib', who lived and still counts among his admirers and devotees not only numerous Mohammedans but also an equally large number of

Hindus. Taking into consideration his countless Hindu admirers the 'Khawja Sahib' in his life time ordered his Mohammedan disciples not to slaughter any cow within the city-limits. And his order is obeyed to the letters till to the present day, although there is no force behind it to punish the violation. What I mean to emphasise by citing these instances is, that the Hindus and the Mohammedans should learn to respect the religious feelings of one another of their own free will. There should be no interference, no meddling of a third party, no legislation, no pact, compelling them to do this or preventing them from doing that. Let them not allow a third party to play with their religious susceptibilities. If a Mohammedan has not the large-heartedness to stop cow-killing for the sake of his Hindu neighbour let his Hindu neighbour be broadminded enough to connive at it. And if a Hindu is narrow-minded enough to disregard the religious feeling of his Mohammedan neighbour, let the latter, true to the spirit of Islam, live in peace with him and not fly at his throat.

"But how can we expect such a reasonable attitude, on the part of the members of both these communities, when our so-called leaders, just to satisfy their vanity and to achieve their own selfish motives, are carrying on a policy of separatism? Just at a time, when India's greatest need is to bring these two communities closer than ever, this band of self-seekers and exploiters are trying to bring about a cleavage not only between the innocent, ignorant masses of Hindus and Mohammedans but are also always coming forward with new devices to effect a complete isolation of the educated class of one community from that of the another. Every educational institution ranging from the type of Islamia College, Calcutta, down to a village Maktab, founded on communal basis, cannot but create a feeling of estrangement between the literates of the two communities. Nothing can be more unfortunate, nothing can be more suicidal for a country than to keep the two essential components of her population educationally and culturally aloof from each other. A college like Islamia not only deprives its Muslim students of the advantage of exchange of thoughts and ideas with their culturally much advanced Hindu fellow-students, but also stands as the greatest stumbling block on the way to nationalism. Further I am more than convinced that the Islamia College in Calcutta is doing much more harm than good to the community itself. And how? Let us begin with the teaching staff. The Head of the staff, of course, is an Englishman and I am told that his mere qualification is his English descent. One fails to understand how a Principal of the Calcutta Madrassa (Arabic Dept.) can be appointed as the Principal of a first grade college like Islamia. However, I must admit here, that he is one of the most amiable gentlemen

I have ever met. In appointing the rest of the professional staff, the preference was naturally given to the members of the community, with the result that the efficiency and competency were sacrificed at the alter of the communal spirit. There is no wonder that the Islamia College possesses a staff, which no educational institution worth the name, can be proud of. But what is most deplorable in the teachers, is their lack of vision, of broad mental outlook and last but not the least, of cultural education. (I must concede that there are some honourable exceptions). The lack of these essential qualities in the teachers cannot but spell disaster upon the student community. So to-day when the whole country is pulsating with a new life, to-day when the cry for freedom from the foreign yoke has gone from one end of the country to the other, the students of Islamia College cannot think of anything but of passing their examinations and availing themselves of the opportunity of the policy of favouratism which a foreign Government is following with a purpose. The College like Islamia will go on supplying the foreign bureaucracy with a clerical staff and officers too but will never produce a patriot, a fighter for the cause of country's freedom.

"A few words about Maktabs. I consider them (Maktab) even more harmful than the higher educational institutions. They are the veritable institutions of segregation and deserve the strongest condemnation. They segregate the rising generations of the two great communities at a time when their minds are most plaint, most receptive and most impressionable and hence most capable of contracting an everlasting friendship which might have averted many communal troubles in their subsequent lives. Moreover the money spent for the Maktabs is only a sheer waste of money. Because many of these Maktabs, specially for girls, exist only in the registers and in many others the actual attendance falls far short of attendance as shown in the register. The girls' classes usually being held within the Purdah, avoid the detection of actual state of affairs by the inspecting officers. Now assuming that all these Maktabs do really exist and are regularly attended to, even then their existence cannot be justified. The very rudimentary knowledge of reading and writing which the boys and girls of the Maktabs acquire, is absolutely of no use to them in their later life, because as soon as they come out of the Maktab, their connection with the books are cut off and within a very short period they revert to the realm of illiteracy and ignorance. If the money spent for such educational institutions cannot be called 'waste of money', then I do not know what the 'waste of money' is. This is not a place to deal with reform in primary schools but I shall content myself in saying that much useful purpose will be served by the

amalgamation of the Maktabs with the primary schools and extending the course of the latter at least to eight years, in order to prevent those boys and girls, who do not intend or cannot afford to prosecute their studies further, from lapsing into illiteracy.

"Our so-called leaders know quite well that their so-called cry for their community is nothing but a cry for self-advertisement, is nothing but a parole to capture the imagination of the ignorant masses and to employ the same for the attainment of their personal gains. They know only too well that so long the evil of a foreign domination hangs over India, no improvement whatsoever, in the sad lots of her labouring masses can be affected. Through the grace of Communal Award, the so-called communal leaders will get some more seats in the councils and the Assembly and with the introduction of the New Constitution some more loaves and fishes of office will go to a handful of so-called educated members of their communities but what about their millions of toiling starving co-religionists? Will there be any changing of their sad lots? Oh! Yes!. It will be for the worst, because it is they who will have to bear the burden of the white elephant. The New Constitutions will cost India many crores more. What I mean to say here that if the so-called communal leaders, both Hindus and Mohammedans, are really interested in the welfare of this communities as a whole, if they sincerely wish to raise the millions of their co-religionists from the abyss of abject slavery, untold misery and of toiling starving co-religionists? Will there be any changing of their tragic lots, then they must close up their ranks, must present a united front not in words only but in action, fight out the common enemy and win the freedom for their common motherland".—Zohadur Rahim : *A. B. Patrika,* May 2, 1935.

Note on the Prime Minister's Award (p. 269).

The All-Bengal Depressed Classes Conference, that was held at Jhenidah (Jessore) on the 19th and 20th May, 1935, with Sj. Rajani Kanta Das, B.L., of Dacca in the chair, unanimously rejected the scheme of Indian Constitutional Reforms, now before the Parliament, as disappointing and unacceptable and also the Communal Award being subversive of all principles of nationalism and democracy.

In this connection the following resolution was unanimously passed :

Whereas the constitutional reforms proposals now before the Parliament have denied our political aspiration; whereas these proposals are intended to maintain and perpetuate foreign exploitation and domination, and as such have been unanimously condemned as more retrograde, expensive and humiliating than the existing system, this Conference rejects these reforms proposals in their entirety and

urges the people in general to launch an effective campaign for their rejection throughout the counry.

Note on University Education.

I have already (Ch. XVIII, Vol. I and Ch. VI in the present Vol.) dwelt at length upon the miseries invited by and entailed upon the Bengali youths on account of degree-hunting mania. An atmosphere has been created so that any youngman minus a degree is regarded as a social leper or an untouchable though if he is successful in business thousands (including graduates) stand before him in fawning and cringing attitude for a favour or a job. The malady is by no means confined to Bengal but has spread to other provinces as well. In Bengal, last year, the number of Matriculation candidates (*i.e.*, aspirants for college entry) was 23,000 while this year the number has risen to 25,000; and the Punjab easily comes off second best with 20,000. Another noteworthy fact is that precisely in proportion to the Matriculation candidates suicides have gone on increasing because of failures in examination. The *Statesman* has recently, in the course of a leader on the subject, some very pertinent remarks to make:

"At least half a dozen boys have taken their own lives since they learned of their failure in the recent matriculation examination for the Punjab University; and even where they have not admitted as much it is inferable that the two events have been cause and effect. That is a very real tragedy, quite apart from the notorious experience that suicide is particularly infectious among the young, as America and Central European countries have shown in times of depression. The victims have received much posthumous sympathy. It would be impossible and churlish not to pity them, as boys caught up and broken on the wheels of a far too mechanical system which their immaturity misunderstands. But immaturity such as theirs is only a 'mitigating circumstance.' Suicide remains an offence against the law and creed of almost every community in the world and even if the individual conscience honestly repudiates that law, and claims the extreme of personal liberty, we do not see how it can find any argument approving suicide as a relief from trouble. Few people have so little religion in them that they deny the existence or reject the authority of some Supreme Captain, whether the name they honour is God, or the vaguer 'Life Force,' or simply Duty to a family. Each man has a life to live, and the least he should do is to keep his end

up in it and do his best in his own department until it is over at the bidding of that Captain.

"But it will be said that through no fault of theirs there is a hopelessly inadequate variety of departments in life, and convention, parental scruples, or their own limited horizons, concentrate and exhaust their minds and *morale* in the single process of which matriculation is a single stage. Then let pity for the suicides allow of still more sympathy with the parents whom they desert, and let that sympathy rebuke both the parents for their blind surrender to a faulty process, and the defects of the process itself. There are common and familiar arguments, and some readers may remember the following example of them :

Bhadralok still almost monopolize the clerical and subordinate administrative services of Government. They are prominent in medicine, in teaching, and at the Bar. But, in spite of these advantages, they have felt the shrinkage of foreign employment; and as the education which they receive is generally literary and ill-adapted to incline the youthful mind to industrial, commercial or agricultural pursuits, they have not yet succeeded in finding fresh outlets for their energies. Their hold on land too has weakened owing to increasing pressure of population and excessive sub-infeudation. Altogether economic prospects have narrowed, and the increasing numbers who draw fixed incomes have felt the pinch of rising prices. On the other hand, the memories and associations of their earlier prosperity, combined with growing contact with Western ideas and standards of comfort, have raised their expectations of the pecuniary remuneration which reward a laborious and, to their minds, a costly education.

"That was written seventeen years ago in comment of conditions in another Province; but it is obviously relevant to the case of the student suicides to-day, even if it overstates a few while it understates many more. Indeed, it seems that nowadays not everyone will wait to see what he can make of his completed education : some have been taught to believe so firmly in only one possible key to success that they feel beaten so soon as they have tried and failed to grasp it. Yet in all these seventeen years too little has been done, either by authority or by public opinion, to disentangle and cure the remediable elements in the mischief. New Universities are founded on the old pattern more often than the old are improved to meet changing needs. Committees in various Provinces have suggested reforms whereby there might be some satisfactory alternative to an education 'generally literary and ill-adapted to incline the youthful mind to industrial, commercial or agricultural pursuits,' as the report we have quoted puts it. Something has been done here and there as energy insisted

and resources permitted, and no references to the problem are complete that do not mention what has been done by some Universities to give students larger fields and wider varieties of interests. The recent recasting of Calcutta's matriculation regulations, for example, may well prove to be an outstanding landmark in the history of educational betterment. It tends to be forgotten in discussions on this subject that the Universities of India do not confine their attention to 'arts' (languages and literature, history and philosophy) and law. The 'useful' departments for which there is so much clamour are there; most of them have long been there; science, medicine, engineering, commercial studies, art. It is hard to see what greater choice can be offered.

"Proposals for readjustment and improvement can be slow to take effect. The Punjab Government, for example, has not got further than promising 'most careful consideration' of the competent report of the Anderson Committee which dealt with the need of more 'practical' possibilities in the school curriculum. To its recommendations there has been plenty of political obstruction from the public, while many of those who should be able to profit from it let theories of caste and social convention (hard things to resist any where) prevent them from welcoming the spirit of the report and doing useful and profitable work that they imagine to be beneath their dignity. In other countries men can rise to high positions without university advantages. Britain's Secretary of State for the Dominions to-day was once an engine-cleaner, is proud of it, and was good at it. Some of the leading figures in journalism started their working life by pushing hand carts from printing office to railway station, or wiping surplus ink off the rollers, and never got within sight of a University. Organized education exercises a dominant influence in India. Men cannot become doctors or lawyers or civil servants, or hardly anything except manual workers, except through University qualifications. Even so, the boy who has failed his matric or any other examination has alternatives to despair, and as social organization improves parents may perhaps be less inclined to want their boys to believe that success or failure in an examination at sixteen means success or failure for life as a whole."—May 27, 1935.

I have cited dozens of instances in which youngmen by their pluck and grit have overcome adverse circumstances and come to the fore, in several walks of life, though innocent of college, nay secondary, education. Mr. Bernard Shaw, himself a self-taught man, remarks that "our very peasants have something morally hardier in them that culminates in a Bunyan, a Burns or a Carlyle." This remark is of special importance to a caste-ridden country, where naturally undue importance is

attached to birth or pedigree. Of Henry Morton Stanley, the celebrated African explorer, one reads:

The career which led to his romantic reputation as a man began with his disordered life as a child. He, John Rowland, was the illegitimate son of a maid-servant who neglected him, and of a farmer who was killed in a public house. For eight years an outcast, he languished in the poor-house. At fifteen he became a shepherd, at seventeen he shipped to America as a cabin-boy. There he found a father, the merchant Henry Morton Stanley, whom he had seen reading a newspaper in his office and had accosted with the words, "Do you want a boy, Sir?"—Emil Ludwig: *Genius and Character.*

The origin of Leonardo da Vinci is equally humble and obscure. The great painter, engineer, inventor and the anticipator of Bacon in the experimental (inductive) method rolled into one. Of him it is recorded:

"In a country of famous bastards, among the hills near Empoli, fate chose a young travelling Florentine as the man who was to make a peasant girl the mother of a genius. . . . . All the details of his race are lost; but one thing survives, the name of the village. And so a maid brought this poor place immortality: Vinci resounds through the centuries because Leonardo was born there.

"He was a self-taught man who began at thirty teaching himself Latin and mathematics. For this reason he was the enemy of all the academic humanists of his day, who looked down upon him 'because I am not educated,—I, an inventor!' And he felt scorn, most often a gentle scorn, for all sophists and philosophers."—*ibid.*

The curious mentality of our college-bred youngmen finds expression in a correspondence quoted below.

UNEMPLOYMENT IN BENGAL.

To The Editor,

Sir,—Your leader of this morning (28-5-35) appears most timely. The educated youths of Bengal are being shut out from all walks of business and service. Employment is getting dearer and rarer and the number of unemployed youths is mounting up by leaps and bounds. University degrees are now considered of no economic value—rather these degrees hang round the necks of graduates like garlands of shame. Unwanted everywhere, bereft of hope and denuded of cheer they swim for a time against the current and then sink down into eternal despair. This useless waste of Bengal's youthful energy is a serious loss to the nation. But few in Bengal cared to probe the disease and find a cure. It will

be a good day for Bengal if you, Sir, take up this question in all seriousness and pursue it in a series of articles, without rest or respite, to rouse the sleeping leviathan of her business magnates to action. The idea requires to be hammered into the brains of all who care for the material welfare and prosperity of Bengal and her children.

There are no want of capable "Bengalee industrialists, bankers and businessmen" in Calcutta and if they will all pool their resources and strength together, the regeneration of dying Bengal will not long remain an idle brain's fantasy. If in this attempt European and non-Bengalee businessmen and organisations join, that will be welcome. But even if they do not, the Bengalee industrialists and businessmen by themselves can surely be expected to do their duty to their own Province and people. A touch of sympathy and a dose of active help, on lines touched by you, to start them on their feet in business, will easily transform the present outlook of the Bengalee youths from one of rank despondency to one of high expectations. Will the Roys and Laws of Bengal fail to rise equal to the occasion? Bengal is proud of them and in this national crisis—this ever-recurring wastage of educated Bengalee youths due to unemployment and privations is nothing less than a crisis—it is they alone that can retrieve the situation before it is absolutely out of hand. You will do a real national service if you can wield your pen to bring that consummation about.

Luckless Graduate.

The youngmen must go through the tread-mill of the University and the moment he comes out of it he expects to be provided with a job, failing which disappointment overtakes him. "He is shut out from all walks of business and service." His pathetic appeal is first directed to European and non-Bengali businessmen, failing which he turns his wistful eyes towards the Roys and Laws of Bengal; in other words everything should be done *for* him and nothing *by* him.

During the last quarter of a century I have been trying to bring home to him that the non-Bengalis, notably the Marwaris, have effected the economic conquest of Bengal by their grit, dogged perseverance, industry and thrift. He ought to know that they began their operations a century or more ago in the pre-railway days with the proverbial *lota, kamli* and *chhatu i.e.*, a brass pot, a blanket and a handful of parched and powdered barley and grain, while our ancestors who were in the possession of the field of commerce and trade

were idling away in ease and luxury. Even now the non-Bengali continues his conquest of Bengal with no other stock-in-trade than the above mentioned articles. Is the young graduate, indolent and ease-loving that he is, prepared to tramp the countryside in the burning sun on a diet of *chhatu*? On the contrary he wants his path to be strewn with roses. He coolly ignores that the university education has utterly incapacitated him for the rough-and-tumble of a successful business career.

Then the Roys and Laws are invoked to help him out of the quagmire of despondency. Well, the Roys of Hatkhola are doing their bit. They ceased to be mere money-lenders long ago. They have been successfully running an inland steamship line in fierce competition with a powerful English company for years past and they have also started a big jute mill. The Laws have also recently taken to business as well. The list of business magnates is soon exhausted. The Roys and Laws can at best find employment for a few scores of youths. But what of the thousands and tens of thousands of unemployed graduates? Then again the graduate must be trained and apprenticed not only for a quill-driving job but for higher employments. But then he must forget that he can only quote Shakespeare and Bertrand Russell. He must again begin *de novo* at the lowest rung of the ladder on a poor remuneration and slowly rise to higher steps. But as I have already shown he has wasted the precious period of his life.

How helpless as a baby in earning his daily bread and how utterly ignorant of business instincts an average graduate is, is further proved by the "Ten Commandments for the Government of Bengal to cure Unemployment" suggested by a B. Sc. correspondent in the *A. B. Patrika* (July 4, 1935). I select one or two choice items:

The government is "to establish jute mills, cotton mills and sugar mills on a big scale and train Bengali boys in the management of the same." This is the mentality of an average graduate. Everything should be done for him. He forgets or

ignores that anything done through state agency becomes an extravagantly costly affair. Moreover to start with, expert weaving and spinning masters and foremen (European or non-Bengali) must be secured for the first few years and under them the Bengalis must undergo thorough training before they can be entrusted with full responsibility. Moreover, graduate apprentices generally prove a costly luxury and in nine cases out of ten they will turn out to be failures. I have shown that ever since the first jute mill was opened, there have sprang up some seventy or eighty more, and of late several jute mills owned and managed by Marwaris and another at Lilooah by Messrs. Adamjee Hajee Dawood & Co., Ltd. Only one jute mill (The Premchand) so far has been started by Bengali enterprise. The three or four cotton mills started by the Bengalis, taken together, contain a less number of spindles and looms than the Kesoram Cotton Mills owned and managed by a Marwari firm.

As regards sugar mills the B. Sc. correspondent and his confrères are ignorant of the simple fact that there are already some 90 or more (*ante* p. 133) sugar mills in the United Provinces and Behar doing a roaring business. Some 4 or 5 sugar mills have already been started on a big scale by Marwari enterprise and only a small one by Bengali capital and management. But the helpless Bengali graduate can only invoke government help like the waggoner in Æsop's Fables who would call upon Hercules without laying his shoulder to the wheel.

Both in Vol. I, Ch. XXVI and in the present volume (Ch. VI) I have discussed *ad nauseam* the utter ineptitude of the Bengali in the business world. The graduates are hopelessly inefficient. The path to a successful career in business lies not through the university career. The biggest jute mill on the Hugli is owned by a Marwari firm of which the leading figure is Sir Hukumchand Swarupchand, who does not know even English (*continued on* p. 447).

Note on the Budget of Bengal (p. 209).

The Provincial Government is equally on a par with the Imperial Government in turning a deaf ear to the piteous appeals of the councillors. It is said that the last straw broke the camel's back. But evidently it is considered that the peasant's back can bear any amount of load, no matter to what straits he is reduced. Recently the Bengal Government introduced five additional new taxes (on electricity, court-fees, amusement, tobacco etc.) It should be remembered that the peasant has to bear a not-inconsiderable share of the Imperial taxation *e.g.*, price of post cards has been trebled ; duty on sugar nearly 160 per cent.; on textiles 50 per cent. etc., also duty on salt, kerosene, petrol etc. At a time when his income has been very much reduced (p. 205), the local Government has thought it fit to saddle him with additional burden. The utterly callous indifference of our rulers to the grinding poverty and miseries of the people need not cause surprise when we bear in mind John Bright's utterance, "the tax-payers have no voice in the control of the spenders and enjoyers of the taxes."

The Swan Committee (presided over by a Commissioner of a Division) recommended that retrenchment to the extent of rupees one crore and eighty lakhs could be easily affected. But the top-heavy and the princely paid system must be kept intact and what is still more, following in the wake of the Imperial Government the cut in the salary must be restored! Mr. G. D. Birla pointed out in 1931 that "Government servants are about the happiest," as all other classes have been hard hit, and yet the over-pampered services must get relief at the expense of the helpless peasant.

It must be said to the credit of the Moslem members that a few of them entered their protest but that only with regard to the tobacco bill ; on other items, I understand, they voted solid with the Government. The absence of the Congress group has given an opportunity to the most incompetent and third-rate men to get in. The Government, with their help as also with that of the European group and the nominated members,

ever ready to obey the behests of those to whom they owe their existence, can carry any measure it likes.

The Tobacco-Tax—Its Objection.

After the mutiny the finances of India had been upset and James Wilson, a financier of established reputation in England was sent out to place them on a sound basis. Wilson produced a budget, which comprised proposals for income-tax, a tobacco tax and a system of licence on trades and professions. Lord Canning however disapproved of the tobacco tax. Ultimately under Andrew Laing, another able financier, who succeeded Wilson, the tobacco tax had been abandoned, owing to the inquisitorial nature of the supervision it would involve in its collection.

As regards the hardship on the poor peasant if a tobacco-tax was imposed the following advice may prove interesting:

"Let Government impose any tax it likes—income-tax, licence tax, succession tax, salt tax, feast tax, or fast tax, but let it have a care that it does not tax that precious weed, which is the Bengal raiyat's balm of Gilead—his only solace amid the privations of his wretched life."—*Govinda Samanta, the History of a Bengal Raiyat,* Ed. 1874, by Rev. Lal Behari Dey.

The "nation-building" departments are a mere *simulacrum* (p. 211). The recent discussion in the Bengal Council on state-aid to industries is a fitting commentary on the above.

State-Aid to Industries: Strong Criticism of Govt.'s Policy.

The way in which the Bengal State-Aid to Industries Act was being worked, came in for a good deal of trenchant criticism in the Bengal Legislative Council yesterday (Thursday), March 24/35.

The question was raised by Mr. N. R. Norton and Mr. Narendra Kumar Basu by way of two token cuts in the demand for grant for "Industries".

Mr. Norton said that when the Act was passed, it brought great hope to the budding industrialists but so far no one had been benefited. The only money spent so far had been approximately Rs. 1250 to pay for advertisements in the daily papers to invite objections to those applications which the Board had recommended to the Government. When this Act was passed, an Advisory Board was formed. This Board

had met once per month approximately since November 1932, spending a considerable amount of time in considering the various applications and had received valuable advice from the Director of Industries and his staff.

The position was this, proceeded the speaker, that up to the end of January, 1934—twenty-seven months after the first meeting of the Board, they found *that not a single pice had yet been paid to any applicant* and there appeared to be very little likelihood of anything being done in the near future. For, the length of time taken by Government to consider the recommendations of the Board and then the inordinate length of time again taken to arrange the preliminary mortgage, etc., simply disheartened the applicants so that they eventually withdrew their applications.

It should also be borne in mind that the applications were only for small sums. There is evidently no money to spare for the help of struggling industries.

Note on the Police Budget (p. 211).

In proportion as the cost of police has increased lawlessness and dacoities have got a free hand. Almost every day several cases are reported in the dailies:

Lawlessness in the country increases, it seems, along with the increase of the cost of maintaining "law and order". One-fifth of the public revenues of Bengal is consumed by the Police Department with the result that there scarcely passes a day without reports of daring dacoities committed in this or that part of the country. In our yesterday's issue there appeared reports of several dacoities the most daring of which was the one reported from Noakhali where the dacoits numbering about 40 and armed with guns, daggers etc., raided the house of a talukdar and money-lender, mercilessly belaboured the inmates of the house, including a guest, and decamped with a fairly large booty. The primary function of the Police in all civilized countries is to afford due protection to life and property of the people but unfortunately this is exactly the task which is most ill performed by our guardians of law and order. The Home Member seems to think that he is there to whitewash the conduct of the Police and to support them in all their acts, good, bad or indifferent.—Daily paper, April 11/35.

Fifty-two cases of dacoity were reported to the police from the different districts during the week ending April 6 and in the following week the figure was 28. During March, 148 cases were reported in Bengal alone.

Note on the New Constitution.

After the book has nearly been printed off, some facts have come out which corroborate my statements made in the foregoing chapters.

That the Assembly is a mere mock parliament where the members are allowed to deliver speeches, while the bureaucrats laugh in their sleeves and ride roughshod over them and turn a deaf ear to the popular demands is conclusively proved by this year's discussion over the Finance Bill. The presentation of the Budget is a mere farce. Eighty per cent. of the expenditure (*e.g.* under military and railways, pay and pension of the Civil Service etc.) is non-votable ; while the remaining 20 per cent. is submitted as a matter of courtesy. The one thing which weighs with the bureaucrats is the balancing of the budget, no matter how intolerable be the sufferings of the people.

In this connection it is important to bear in mind that even the European group, ever ready to support government with its vote, lost patience, while Sir Cowasji Jehangir, an ultra-moderate, equally joined hands with the European members.

The Assembly, on Saturday, (April 6, 1935) by 64 votes to 41, rejected Sir James Grigg's amendment restoring the salt duty, thereby refusing to accept the Viceroy's recommendation to pass the finance bill in its original form.

Sir James Grigg thereupon requested the President for endorsement of the certification.

Mr. Bhulabhai Desai (Congress leader) said that . . . . . the army expenditure was non-votable. Then the five per cent. cut in salaries had been restored costing two crores. At a time when the price level had fallen by forty per cent., could not the service men have continued the cut which they imposed on themselves three years ago?

Continuing Mr. Desai quoted extensively from Lord Durham's description of the situation in Canada given 101 years ago, which aptly described the situation in India today. Lord Durham had condemned the system of Government, where

hostility to the people of the country by those who governed was a qualification for honour, so that incompetent men were given positions of glory and the advice tendered to the Governor-General was bad advice. Similarly advice tendered to the Governor-General was bad advice, because five crores could have been easily found.

Sir Cowasji Jehangir expressed his sincere regret that the Government should have acted in the way they had done. . . . . If ever there was proof that radical change was required in the present constitution, that proof had been supplied by the Government benches. What about the safeguards, were they to be used in the same way? (Voices: worse ways) Sir Cowasji said that the safeguards would prove the greatest hindrance to the government of the future.

Sir Leslie Hudson on behalf of the European Group declared: We believe that some of them might have been accepted without detriment to the budgetary position and that such action could be taken in the interests of this country. We recognise that the Government alone are ultimately responsible for the consequences of their policy. We are also responsible to our constituents for the fullest expression of their views. The Government, therefore, cannot expect us in this matter to shirk our responsibility and share theirs, when they have not heeded our representations. And under the circumstances and in order to express our disappointment, we propose to remain neutral on this vote.

Regarding the safeguards provided for in the proposed constitution as you look into details, new beauties arise.

The *New Statesman and Nation*, dated Saturday, April 13, 1935, writes:

"Mr. Churchill grossly overstated his case when he used the alleged discontent of the Indian Civil Service as a weapon with which to assail the whole India Bill. Some discontent, however, there is and it availed to draw Sir Samuel Hoare's consent to a most questionable amendment. The fact seems to be that five members of the executive of the Bengal Civil Service Association circularised a critical memorandum among its members with the curious announcement that silence would imply

consent. Six individuals dissented, the rest were silent, but whether in assent or contempt who shall say? Thanks to this hint of discontent and to some speeches from 'loyal' Conservatives, the hands of future Indian Government are now more tightly bound than ever in dealing with the Civil Service. Not only are the interests of all present members secured, but it is now laid down that changes affecting the interests of those who enter in the future can be brought about only by an Act of Parliament. In other words, *Westminster fixes the remuneration of future Civil Servants, but Delhi pays the bill.* Subsequently the Labour Party tried but failed to remove one of the meanest of the minor tributes laid on the Indian people. The cost of Christian chaplains who serve not merely soldiers but civilians also is actually imposed on Hindu and Mohammedan tax-payers. Not only so, but this establishment is a reserved subject, which the elected legislature may not touch. Imperialism is subject to curious lapses of dignity."

If diarchy has proved to be a dismal failure and a costly luxury, the present constitution will turn out to be a veritable curse. Not only from the financial point of view it will prove to be ruinous but its moral effect on the people will be ever more pernicious. Under the existing regime only the sycophants and flunkeys, who are lost to all sense of shame and self-respect—who have no hesitation in selling their country's interests, jump at seizing the reins of administration, knowing full well that they are mere passive tools and ciphers. (p. 127). But the men who really matter cannot be cajoled by ignoble methods of gubernatorial blandishments and necessarily refuse to accept office.

The greatest drawback of British rule is the underlying principle that "everything must be done *for* you and nothing *by* you." It is in keeping with its tradition that the people should be kept like birds in a cage protected from hawks and falcons but unable to help themselves. Hence all that go to the making of a people—self-help, initiative, resourcefulness, adaptibility to altered condition are atrophied. Hence when a famine or flood or earthquake overtakes the country, private effort to cope with the calamity is looked askance or regarded as anathema. All that you have to do is to pay handsome subscription or donation into the coffers of Government with what results I need not recapitulate (see Vol. I, p. 234 *et seq*, this

Vol., Ch. VIII, p. 156). From this point of view British rule must be pronounced to be a failure.

The attitude of the Government in regard to the Quetta earthquake relief is a case in point. Mahatma Gandhi, Mr. Rajendra Prasad, the Congress President, and other eminent leaders undertook to proceed to the scene of devastation with batches of self-sacrificing volunteers and render what aid they could. But the Indian Government refused permission. This has naturally been the occasion of much adverse criticism in the Indian nationalist papers. Why should the Government dread publicity of its doings? Funds are flowing in not only from England but also from foreign lands. Why should Quetta be treated as an *arcanum* or a *zenana* under strictly purda seclusion? In every country a national Government should have welcomed volunteer services as valuable auxiliary to its own efforts. But the official view of things runs counter to the notion of the people taking initiative in such matters. Every sort of relief measure must be initiated and organised by the *ma bap* (paternal) Government and the Indian public should only contribute to its coffers and stand aside and look helplessly on. Theirs not to reason why but to pay and sigh. Quetta is a military station and can be screened off from public gaze. Fortunately, when a national calamity overtakes a British province no such quarantine can be imposed.[1]

That the Government fights shy of entering into competition with private efforts is voiced by the organ of the British mercantile community and of imperialism:

"It (Bengal Govt.) should take warning from the floods in North Bengal when government was slow to believe and act, but Sir P. C. Roy, quick, with the consequence that many observers, not all of them Indian nor all prejudiced against Government, thought that Government flood-relief work came

[1] It is unnecessary to mention here the significant omission of all references to flood-relief work by private agencies in the Administration Reports of the Bengal Government; evidently the bureaucracy is afraid of the public recognition of the part played by the people themselves.

very badly out of the comparison. Sir P. C. Roy has again come forward to ask for a repetition of the support in men and money given him at that time and we do not doubt that he will succeed. . . . If government were to give any appearance of not appreciating the gravity of the situation or of otherwise failing, it would have very little credit left"—*The Statesman*, 12th August, 1931.

How clumsily and fruitlessly Government agency does relief work has already been shown. The pay of the officials and their halting and travelling allowances often swallow up more than half of the amount allotted or collected. But the volunteers of national organisations are self-less workers ; they go to the huts of the sufferers in the remote villages and by personal inquiries are in a position to bring real help to the door ; whereas officials can only dole out relief from the headquarters and through mercenaries...

After the Franco-Prussian war Bismarck, at the zenith of his fame as a statesman, made the colossal blunder of insisting on the annexation of Alsace and Lorraine—two provinces not essential to a united Germany. "The choice before him was either to make large annexations or to appease France. The task of appeasement was far the more difficult. It would involve a terrific struggle with the generals ; it meant resisting German national feeling, now at the full tide as the result of the war. On the other hand to gather up the immediate fruits of victory was the easy course."

France now began to cherish the spirit of revenge ("revanche") and increase her military power. Germany in turn entered on a competitive race, with the result that other powers were compelled to follow suit. The whole of Europe thus became an "armed camp" President Wilson rightly declared that the annexation of Alsace-Lorraine poisoned the international life of Europe for the next forty years.

Although Britain is not Germany and India is not France, but the analogy holds good in essential respects. The moral is that a people's feelings should not be outraged and trampled upon. In their moment of intoxication British statesmen are

unable to take long-range views. According to them India at the moment is hopelessly disunited, she lies prostrate at the feet of the dominant power, hence *any* constitution which may suit its fancy must be forced upon the former.

It has been taken for granted that India will never grow into political manhood. At any rate this is a consummation devoutly wished by the Imperialists, hence the frantic efforts of angling for an alliance with the Moslem and of weaning away the so-called depressed classes.

For India also a pregnant lesson is to be learned. She must close her ranks, cease from wrangling over petty, parochial and communal interests and look at things from broad national standpoints. That patriotic Moslems can rise superior to immediate personal gains is proved by the numerous quotations from their writings and speeches which I have taken care to put in. Just at this moment the following statement issued to the press by Mr. Md. Azahar, Secretary, "Anti-Separate Electorate League" is significant:

"The Nationalist Muslims of Bengal strongly protest against the recent move of some reactionary Muslims who in spite of the constant demand of the Muslim masses for joint electorate are now pressing for the retention of separate electorate clause in the forthcoming India Bill, which will blight for ever the chances of India's attaining Purna Swaraj. We emphatically declare that, with the exception of a few aristocratic and capitalist Moslims, the entire Shia Muslims and the majority of Sunni Muslims are in favour of joint electorate, and they unanimously support clause 299 of the India Bill, 1935, by which separate electorate for minorities can at any time after the passing of the act be abolished by an order-in-council either pursuant to resolutions passed by a majority in council or any Provincial Legislature or after consultation with them."

But a communique of the Government of India dated 2nd July, 1935, takes good care to inform the Indian public that the communal "award" cannot be modified or changed before the expiry of ten years. So Mr. Azahar's optimism receives a rude shock.

Note on "Indigenous Peace, Liberty and Justice" and Military Expenditure.

Before sending his big handiwork, the Indian Constitution (and consternation) Bill, up to the House of Lords after making it as retrograde for India and profitable to Great Britain as he and his colleagues could, Sir Samuel Hoare uttered the following self-congratulatory words in the course of a speech in the House of Commons:

"The Federation is a great conception, and we shall have shown to the world that we succeeded in a time of crisis in establishing in Asia a great territory of indigenous peace, liberty and justice."

What is *indigenous* peace, liberty and justice? Are there two species or varieties of peace, liberty and justice, indigenous and exotic? If so, Indians may console themselves with the thought that they have got such varieties of peace, liberty and justice as could grow in India, though these may be inferior to exotic varieties.

Peace in the sense of absence of war there is in India. But is that enough? Peace is valued because of the progress in enlightenment and the prosperity which are associated with it. But where is enlightenment and where prosperity? Not to speak of enlightenment, even "literacy is rare outside urban areas, and even in these the number of literates bears but a small proportion to the total population," according to the Report of the Joint Committee on Indian Constitutional Reform, Vol. I, Part I, page 2. According to the Indian Census of 1921, the illiterates were 92·9 per cent of the population; according to the Census of 1931, they were 92 per cent. But even this slight progress of 9 per cent in ten years is illusory: for, whereas in 1921 the total number of illiterates was 29,34,31,589, in 1931 it was 32,16,28,003.

As regards prosperity, the Montagu-Chelmsford Report, signed by the then Secretary of State and the then Governor-General, states that "the immense masses of the people are poor, ignorant, and helpless far beyond the standard of Europe" (Section 132). The Joint Select Committee's Report also states that in India "the average standard of living is low and can

scarcely be compared with that of the more backward countries of Europe" (Vol. I, Part I, page 2).

So, if India has got peace, it has been a sort of "peace at any price," speaking figuratively. But literally, at what price?

This miscalled 'indigenous' variety of peace is maintained by the army in India at a disastrous cost. Mr. George Lansbury writes in *Labour's Way with the Commonwealth*, p. 72:

"In the Report of the Simon Commission, Sir Walter Layton points out that defence accounts for no less than 61½ per cent of the expenditure of the Government of India. This, he points out, is 'a higher proportion than in any other country in the world.'[1] It is slightly less now, but still appallingly high, and it should be noted that this military expenditure does not include expenditure on strategic railways, etc. The result, as Sir Walter Layton points out, is that 'other kinds of expenditure are low . . . Many forms of Government service are very little developed.'

How high, comparatively speaking, India's military expenditure is, will appear from the following note in *World Events* of America:

Originating in the Japanese Finance Department and reprinted by the *Manchester* (England) *Guardian*, perhaps the world's most dependable newspaper, the percentages of funds going into armaments, out of various national budgets, stand as follows:

		1931-32	1932-33	1933-34	1934-35
Japan	...	34·65	36·71	42·50	64·62
France	...	22·85	23·35	21·67	21·57
Italy	...	27·20	26·29	22·76	21·29
U. S. A.	...	19·54	18·68	18·66	18·14
Britain	...	11·72	11·03	13·01	13·57
German	...	6·44	8·22	11·32	13·85

In rural Bengal, where there are dacoities every month and week, is there complete security of life and property?

After the establishment of *indigenous* peace comes the establishment of *indigenous* liberty. We have admitted that there is peace in the sense of absence of war. But we are afraid we cannot admit that Sir Samuel Hoare and his colleagues or their

[1] Cmd. 2569 of 1930, p. 216, para 248.

predecessors in office have established liberty in India. Or, leaving aside the past and the present, it cannot be admitted that when the Government of India Bill becomes the law of the land, it will establish *indigenous* liberty. But we fully admit that, though the *indigenes,* the natives of the soil, will not be made free citizens by it, it will confer liberty, freedom, autonomy on various exotics. The *indigenes,* the natives, will not enjoy freedom of movement, freedom of speech, freedom of the press and freedom of association owing to the ordinary restrictive penal laws and the restrictive regulations, ordinance-like laws. They will have no control over the Services, defence, foreign affairs, exchange, currency, finance, etc., and there will be no fiscal independence. They will not be free to promote their industries, commerce and shipping by adopting such measures as free countries have adopted and may adopt for the purpose.

The above is quoted from the *Modern Review,* July, 1935.

Note on Failure of Educated Boys in Industry (p. 435).

Lord Trent at Leys School, Cambridge, spoke in praise of industry as a career for the public schoolboy.

"Industry is the life blood of the nation", he said. "Every single person of the 45,000,000 people in this country is indirectly, if not directly dependent upon the success that attends upon our industries.

"More and more it was being realised that anyone running a business had three main objects in view—to serve the community, to look after the people he employed, and to make a profit for himself or his shareholders. But don't forget that a public schoolboy, even if he has a trunkful of prizes and blazers and caps of all colours, when he enters business cuts about as much ice as a new-born baby. His value to the firm is less than that of an elementary schoolboy who has had a few months' experience of his job running errands or licking envelopes and who, what is more, has a much greater first-hand knowledge of life and its problems.

"For a time the old public schoolboy will be a liability rather than an asset to his firm. He will have to settle down, learn his job, and learn above all to mix with people whose origin, whose home life, whose whole background, in short, is quite different from his."

Note on British Imperialism (pp. 250-253).

It would require another Norman Angell and another *Great Illusion* to prove the simple thesis that a contented and prosperous India would be more paying to Britain, that she would consume many times more of British goods than a discontented and impoverished India. Political subjection counts but little in this respect. If the volume of trade of Britain with the United States of America and of Canada be compared with that of India, this simple fact will be borne out. But the average imperialist of the type of Churchill and Beaverbrook, who unfortunately dominate the British policy, is no better than the man-in-the-street in his narrow and selfish outlook.

Countries.	Imports from United Kingdom		Exports to United Kingdom	
	1931-32	1932-33	1931-32	1932-33
India ...	Rs. 44,81,43,521	Rs. 48,79,79,622	Rs. 42,87,59,075	Rs. 37,45,85,636
United States	Dols. 105,443,000	Dols. 73,786,000	Dols. 376,969,000	Dols. 257,194,000
Canada ...	Dols. 106,372,000	Dols. 86,381,000	Dols. 174,963,000	Dols. 185,133,000

Population of India, the United States and Canada in millions is 352, 122, and 10⅓ respectively. The figures are from the *Statesman's Year-Book* for 1934.

Eloquent Commentary on Economic Distress in Bengal (p. 207).

"India is a land of opulence, India is a land of perpetual famines, India is a land of contradictions. One need not go far. In the streets of Calcutta at any time one may find immensely rich men moving about in motor cars and squandering money like anything—in the very same

streets one will find poor beggars, who have nothing but napkins to wear, taking their daily bread from the dust-bins, the remnants of food thrown into those receptacles being the only eatables available to them. How many of our rich people, zemindars, merchants, Government servants, ever think of these destitute people? They are born like animals, and they live and die like animals on the footpaths of the city!

"The hunger-marchers' procession at Burdwan shows but an infinitesimal portion of the picture. Indians, especially the dumb millions, have not yet learnt to make demonstrations in the way in which the Westerners do these. Otherwise there would have been not one or two demonstrations of hunger-marchers but thousands and thousands of them. One hundred and fifty emaciated men, women and children give but a poor idea of the distress in the land. If one wishes to have a real idea of the distress one has only to go to the villages in the interior. The glamour of the cities, their bioscopes, theatres, schools, colleges, hospitals, etc., do not represent India. The real India is in the villages." —*A. B. Patrika*, July 28/35.

Another thoughtful writer observes:

"The requirements of the world to-day have greatly changed. The demand for prime necessities such as food and normal clothing has decreased, in favour of things to satisfy desires that are obviously of secondary importance, even pure nonsense. Essentials are being systematically relegated to the background, while everything for the leisure hours is much in demand. Luxury, or at any rate imitation luxury, is popular—every one must have it. In the United States the French phrase, 'de luxe', has become quite stereotyped. Ordinary clothing is superseded by fabrics considered more 'de luxe'—less wool and cotton, but more silk, and ten times more artificial silk—so the cotton trade suffers in consequence.

"Meanwhile, a host of new expenses figure in every one's budget, expenses suggested by industries which seem almost to have sprang out of the blue, for, twenty years ago they did not even exist. The world's consumption is now largely made up of an endless demand for automobiles, gramophones, radios, electrical gadgets, telephones, cinematographs, cameras etc. . . . . This is evidently one by-product of the spread of democracy among the masses, who weary of restraint, are at last insisting on having their share in

the good things of life. By diminishing the general sense of responsibility and thrift, and by suddenly revealing the profound instability of our age, the war hastened this evolution of humanity towards immediate gratification. Asia and Africa are rapidly following in the wake of America and Europe in this respect. The progress of the American export trade in all the newer markets is based on the sale of motor cars, cinema films, electrical equipment, radios, type-writers, office equipments and calculating machines, sewing machines, household utensils, refrigerators, agricultural implements, road making machinery, oil-drilling equipments, and so on.

"Naturally, there are still and there always will be purchasers for basic manufactured goods produced by the metal, cotton, and woolen trades, but these are no longer the star turns. Although they are still important, in fact essential, they have been the least prosperous since the War. The blue ribbon is now bestowed elsewhere, and countries which by necessity or habit, are identified with these staple industries are liable to be out of date, and, to a certain extent, out of the running. They are losing the world's markets, and the wealth which once flowed to them is turning towards the new type of producer."—André Siegfried: *England's Crisis*, pp. 95-97.

The above was written some six years ago; but within this short period Japan has stolen a march over England, Germany and America. As far as India is concerned, in spite of high protective tariffs, Japan is capturing the Indian market. Her export over import is increasing by leaps and bounds.[3]

[3] Only a few years ago the export from India to Japan far exceeded the import, but the figures for 1932-33 are eloquent of Japan's progress. It will be seen that the exports of Indian produce have practically remained constant, whilst imports have increased by seven crores in the course of a single year. In the figures for 1933-34 this upward movement of import is still more marked.

Imports into India from Japan.		Exports of Indian produce to Japan.	
1931-32	1932-33	1931-32	1932-33
Rs. 13,33,96,671	Rs. 20,47,73,829	Rs. 13,94,28,225	Rs. 13,95,09,778

The marvellous cheapness of her products readily appeals to the poverty-stricken masses, and our nascent home-industries are threatened with ruin.

The writer has truly said that Asia and Africa are rapidly following in the wake of America and Europe in this respect. This slavish imitation of the West bids fair to be our undoing. During the last four or five years our income has materially diminished owing to trade depression and the low price of the agricultural produce but the rage for amusements, gewgaws and gadgets is ever on the increase, and is instrumental in the drain of the wealth of our land. We are apt to lose sight of the fact that a drastic simplification of life would improve our health, our minds and character. Greeks did not believe that there is something fine in every superlative or that a nation that travels sixty miles an hour is necessarily six times as civilized as one which travels only ten. We are abandoning the traditional way of life. So far increase of knowledge is increase of sorrow.

Note on the Educational Activity of my Father.

In Vol. I (p. 10) I had occasion to say that my father "imbibed the ideas of 'Young Bengal'; he was one of the pioneers of the educational movement in the district and almost the first girl's school was opened by him at Raruli." Mr. Jogesh Chandra Bagal has recently unearthed from the dust-laden and worm-eaten files of old newspapers an account of the activity of my father in the cause of spread of education—specially female education—as early as 1858. The following is a translation of his Bengali article in the columns of the weekly journal "Desh" (17-2-34).

"The early years of the nineteenth century saw the introduction of English education in Calcutta. Soon it spread to rural areas as well. Men interested in the spread of education were not wanting in those days. Anglo-Vernacular schools were started in villages, some of them of no note at all, through their effort. It is interesting to note that female

education was not ignored and there were schools for girls also in many places. Harish Chandra Rây Choudhuri provided opportunity of education to boys and girls of the locality by founding a school at his native place Raruli. Excerpts from the "Samvad Provakar" and "Sambad Sadhuranjan" will give us a glimpse into the efforts then made for the spread of education.

SPREAD OF EDUCATION IN THE LOCALITY AROUND RARULI.

("Sambad Provakar", Feb. 10, 1858 ; B.S. 29th Magh, 1264).

"Recently a Government grant-in-aid Vernacular School has been started at Raruli through the efforts of Harish Chandra Rây Choudhuri and others. Boys and girls have been receiving excellent teaching since, and have in this short period attained a general proficiency hardly to be met with anywhere else. The Collector of Jessore, and Mr. Iswar Chandra Mitra, Deputy Magistrate of Khulna and some highly educated gentlemen visited the school in the month of Magh last, and examined the scholars. They left with very good impression. Credit for this, if mention need be made of it, must go to Pandit Mohanlal Vidyabagish, for his excellent method of teaching, and to Harish Chandra Rây Chaudhuri referred to above, for the unflagging interest he takes in it."

("Samvad Sadhuranjan", May 28, 1858 ; B.S. 12th Jaistha, 1265.)

"Four boys of the Raruli School have been awarded scholarships in the School Final Examination held in September. Babu Dayal Chandra Ray, Deputy Inspector, examined the boys. Supported with these scholarships Harish Chandra Basu and Nabin Chandra Ghosh will study medicine in the Calcutta Medical College, and Sital Chandra Basu, and Pareshnath Ray will go in for English education in the Jessore High English School for four years. Diligence rewarded has very naturally given a stimulus to studies. Such results within two years of its start highly speak of the teachers. The teaching is entrusted to Mohanlal Vidyabagish, a scholar from the Sanskrit College. The great promoter or friend of education Mr. Harish Chandra Rây Choudhuri, who is versed in many languages, is the Secretary of the school by Government nomination. He takes delight in teach-

ing and gives at least two hours to it daily. His teaching is such as illumines the mind of the boys, just as a pearl from the depth of the sea, reflecting sun's rays illumines an opaque substance. The school is fast growing into a useful institution, affording opportunity to boys and girls to study literature and other subjects. In three or four years, it is expected to make a record progress. A visit to the school and examination of the boys of this school, of which we have spoken so highly, by the Deputy Inspector of Schools on 10th inst., was followed close by a visit from Mr. Woodrow, the Inspector of Schools, who examined the boys and girls. He was very much impressed. Mr. Woodrow was induced by the Secretary of the school to pay a visit of inspection to the school at Katipara, beautifully situated in a garden of flowers, and open to air, only a little way off from Raruli. Mr. Bansidhar Ghosh, the founder of the school has proposed to place it under Government control promising annually to contribute Rs. 300/-. This is the most flourishing village in this part of the country. People, if they so mind, can raise enough money to run a school easily, even a college. But difference of opinion, and intoxication of wealth keep them from uniting and stand in its realisation. As it is, the school can expect to be permanent, if only Government extend help to it.

"A friend from Raruli writes to say: 'An incident taken from his life will illustrate the active interest Harish Chandra took in educational activities, specially those connected with female education. From 1858 on, he had to stay at Calcutta from time to time. During those stays, he arranged for the education of his wife Bhubanmohini. No less a person than Iswar Chandra Vidyasagar gave her lessons in Bengali.' "

Concluding Remarks.

I have brought forward instances in support of the view that old age does not necessarily bring in *nirvana* or quiescence

(pp. 353, 360 and 365). A thoughtful French writer on America observes:

"The civilisation of the United States tends to create a youthful type, because it demands youth inexorably whosoever wishes to gain his living and survive in it. Study American society in its offices, factories, homes, or in the streets of Chicago, or Kansas city, or in the Texas ranges, or the forests of Oregon, in church-circle or dance-place. You will see that its atmosphere and rhythm is absolutely incompatible with old age. Old age implies retiring within the self, a dislike for trouble or risk, a passive resignation to the spectacle of life, the tendency in general to play the spectator rather than the actor." This is practically the re-echo of Emerson's characteristics of the bustle of American life and its aversion for old age (p. 326).

I cannot, however, afford to play the spectator but prefer to be rather the actor. Action rather than reflection is my forte; hence old age has not altogether chilled my activity and damped my energy.

But the above characterisation is true only in a limited sense. My activities outside the immediate sphere of the test-tubes (*i.e.*, chemical side) are due in the long run to the inspirational force of idealism; some pure and disinterested longing which heartens the efforts and repays the sacrifices. The scientist should not live the life of a recluse apart from the urgent demands of his country. "It has long been proclaimed that the scientist or philosopher should live apart from the herd, like a hermit or a moral refugee. But this was only a confusing of loneliness with objectivity. For speculation in the realm of thought it is enough that one be simply disinterested or objective. The modern masses are not closed to ideas, but they want them and understand them only within the limits of their own experience or of their most constant and vital preoccupations. The problem is not to level all thought down to mass tendencies; but to answer the questions posed by the masses. If the pure scientist or philosopher who

is capable of originality and leadership refuses to answer, then some slave to the crowd, some low journalist or venal politician, avid of popularity and profit, will answer instead" (Lucien Romier).

In an advanced country like England there is again division of labour in every field ; there are great industrialists, eminent ship-builders, engineers, merchant princes, as also whole-time statesmen and scientists—each contributing his quota. But unfortunately India is in the melting-pot—in her transitional stage—awakening from her age-long slumber and shaking off her stupor. Hence anyone with the ideas about the vast potentialities of his country is often led by necessity to divide his life into distinct halves and even smaller fractions and compartments. All the same one must be on his guard that he does not overdo his part ; that he takes up one thing at a time and does it well.

I pen these lines as some sort of *apologia pro vita mea.* Although it has been my lot to be connected with several industrial enterprises, either as founder or active co-operator, money-making has never been an engrossing pursuit with me nor has it ever been able to divert me from my main purpose. Riches to me has always consisted not in the abundance of wealth but in the fewness of wants. The well known saying that health and contentment lie in living on six pence a day and earning it has ever appealed to me. To me love of money has appeared to be the root of all evil, but up to a certain limit a good competence is a necessity as Mr. Bernard Shaw has it :

"Money represents health, strength, honour, generosity and beauty, as undeniably as the want of it represents illness, weakness, disgrace, meanness, and ugliness. Flee from poverty, which is the root of sin."

This is only an adaptation of the Sanskrit adage : दारिद्र्य दोषो गुणराशिनाशी (*poverty kills all the noble instincts*), which is again re-echoed in the poet's lamentation.

"Chill penury repress'd their noble rage
And froze the genial current of the soul."

But what is a *good competence*? A discussion of it will only lead to endless controversy. The basic idea is that in these matter-of-fact days one must earn money for his daily urgent necessaries but must not allow himself to be engrossed by the inordinate hankering for it. Be on your guard lest you be swallowed by the demon, or what it comes to the same thing: Plain living and high thinking must be the ideal ever before you.

But the danger is that the pursuit of wealth often proves fatal to a man's moral progress—its siren voice lures him to his doom. Fortunately, my inborn, natural instinct has steadied me and spared me from being sucked into the whirlpool of an industrial magnate's life. Again, my multitudinous and varied activities have added fresh zest to life's enjoyment. I can at least partially reciprocate the sentiments embodied in the "Old Man's Comforts":

> You are old, Father William, the young man cried,
> And pleasures with youth pass away;
> And yet you lament not the days that are gone,
> Now tell me the reason, I pray.
> In the days of my youth, Father William replied,
> I remember'd that youth could not last;
> I thought of the future, whatever I did,
> That I never might grieve for the past.

This modern civilization and its concomitant greed of wealth threaten to overwhelm mankind. A writer graphically describes the danger:

"The Post-war era has been remarkable for a greed of wealth and enjoyment beyond any hitherto known. All classes, as a matter of fact, have been permeated by the cult of indulgence. Year by year expenditure on pleasure in all its forms rises. The dress or fashion bill is vastly more than the bill for bread or meat. You find innumerable young men and women whose main object in life is to have a good time. They prefer to have it at somebody else's expense.

"These people are the weak puppies of the litter. They do not matter much.

"But the children who will be rising to young manhood and young womanhood in the next two decades matter vitally, and it should be a matter both of individual and of national concern that they are not debauched or misled by examples and precepts which are fashionable to-day. In the crucible of home and school, they are made—or marred.

"In too many homes, and in too many schools, children are being taught to admire rather than to disdain standards of success in life based upon selfishness, acquisitiveness, snobbishness, national and individual aggrandisement, personal power. They are encouraged to believe that the accumulation of money and possessions is the peak of success, and that a hard-working happy plodder is a figure of fun." It is time, therefore, to cry halt.

INDEX

INDEX

Abdul Karim, Moulvi, 9.
Abdul Karim, on communalism, 274; on primary education, 100.
Abdul Majid Khan, on communal award, 287.
Abdus Samad, on Madrassas and Muktabs, 92; on education and purdah, 95; on communal award, 282.
Abend, on Chinese professors, 200.
Aberigh-Mackay, 183.
Abul Hossain, on education of Moslems, 89.
Abyssinian War, 168.
Accident in science, rôle of, 379.
Acton, Lord, on Ranke, 365; quoted, 409.
Adam's report, 43.
Adams, G. B., quoted, 299.
Adlington, 10.
Adnan, Haliday Edib, on patriotism and communalism, 288.
Afghan Wars, 168.
Aga Khan, H. H. the, 273.
Age vs. youth, 368.
Agricultural improvements in Italy, 78.
Agriculturists, and illiteracy, 81; income of, 204.
Ahmad, Sir Syed, on Bengali Hindus, 85.
Ahmed, Mamtajuddin, on education, 89.
,, R., (Muslim contributor of the *A. B. Patrika*), 91, 271.
,, Tussadaq, on Bengali tongue, 89.
Akbar's idea of justice, 314.
Akram Khan, Moulana, 97.
Alam, quoted, 270.
Alexander and Dandamis, 260.
Ali Imam, on joint electorate, 280.
Amherst, Lord, 26.
Ananta Krishna, L. K., on Moplahs, 349.
Andrews, C. F., on anti-Indian propaganda, 251.
Angell, Norman, quoted, 81, 204, 252.
Anglicists, controversy with orientalists, 21, 40, 104.
Anglo-Indian administrators, 231.
,, College, Calcutta, 12.
Angora, malaria in, 141.
Ansari, on joint electorate, 280.
Ansari, Q., on communal award, 283.
Anstruther, Sir John, 6.
Anti-Indian propaganda, C. F. Andrews on, 251.
Anti-separate Electorate League, 444.
Arminius vs. his brother, 126.
Army policy, 176.
Asaf Ali, on joint electorate, 281.
Asiatic Society of Bengal, 32.
Atherton, F., on Indian Government and New Delhi, 188-91.
Auckland, Lord, and mass education, 45.
Aurangzib, last days of, 361; administration of justice by, 316.
Automobiles, craze for, 337.
Azahar, Md., on joint electorate, 444.

Bancroft, W. D., on P. C. Rây, 366.
Banerjee, R. C., on separate electorate, 267.
Banerji, Krishnamohan, 15.
Bannerjee, Surendranath, 357.
Bannerji, K. P., on Nawabs of Bengal, 225, 292.
Barrie, 116.
Basu, Maladhar, 89.
,, Ram, 38.
Beard, Miriam, on Japan, 76.
Béaslâi, quoted, 369.
Benares Charity School, 9.

Bengal, boundaries of, 217; economic distress in, 207; in 1860, 153; in 1666, 237; note on the budget of, 436; penalisation of, 213; present condition of, 242; under Nawabs, 292; unemployment in, 432.
Bengal Chemical and Pharmaceutical Works Ltd., 375, 398.
Bengalis, failure of, 120.
Bentinck, Lord William, 32, 51.
Bentley, on neglect of irrigation, 139; on tuberculosis, 145.
Bethune, E. D., quoted, 51; on vernacular languages, 108.
Beveridge, on cost of litigation, 301; quoted, 306.
Birkenhead, quoted, 265.
Birla, G. D., on income of agriculturists, 204, 208.
Bodley, R. V. C., on Japan, 200.
Boer War, 167, 203.
Bon, G. le, quoted, 70; on danger of modern education, 113.
Bonifica Integrale, 78.
Bose, Amulyacharan, 399.
,, P. N., on European style of living, 342.
,, Rajsekhar, 403.
,, S., on cinema-going, 322.
Boutros, F., 104.
Bowrey, description of Bengal, 236.
Bradley-Birt, quoted, 11, 16, 97, 237, 297; on Bengal, 238.
Brailsford, H. N., on communal award, 222; on India, 246.
Bramley, 51.
Brentford, Lord, quoted, 265.
Bright, J., quoted, 300.
British India Steam Navigation Co., foundation of, 393.
British Investment in India, 208.
Brock, R. W., on jute industry of Bengal, 213.
Bryce, John and Scottish Church, 20.
Buckle, quoted, 298; on Louis XIV, 185, 361.
Budget of Bengal Government, analysis of, 209, 436; of Police, 438.
Burdwan fever, 136.
Burma Steam Navigation Co., 393.
Burmese Wars, 169.

Caird, Sir J., quoted, 300.
Calcutta Committee and vernacular literature, 40.
,, Corporation and primary education, 101.
,, School Book Society, 39.
,, School Society, 39.
,, water-logging near, 157.
Cahdy, Captain, on medium of instruction, 104.
Capitation Tribunal, 171.
Carey, 4, 11; and vernacular education, 38.
Carlyle, quoted, 309.
Carnegie, A., quoted, 321.
Carr, J. W., on tea-drinking, 336; quoted, 339.
Cathedral Mission College, 21.
Celli, Angelo, on malaria, 141.
Chandicharan, 38.
Charter of 1813, 5, 13, 21.
Chatterjee, Anathnath, on foreign medium of education, 68.
,, Gopal Chandra, on malaria, 139.
,, Haramohan, quoted, 15, 17.
Chaudhuri, J., quoted, 193.
China, mass education in, 120; press in, 77; student movement in, 118.
Chinese Wars, 168.
Chinsurah High School, 9.
Chirol, Sir Valentine, on military policy, 172.
Chunder, Bholanath, quoted, 138.
,, N. C., quoted, 311.
Churchill, W., on India, 253.
Church Missionary Society, 10, 21.
Church of Scotland, 20.

Cia-Lung, Lo, on student movement in China, 118.
Cicero, on old age, 363.
Cinema, craving for, 322.
Clive, quoted, 213.
Close Upton, quoted, 185.
Coffee and Ottawa Pact, 255.
College, Benares Sanskrit, 3; Fort William, 3, 39.
Collins, Michael, 368.
Communalism, 265; before 20th century, 289; views of Z. Rahim on, 423.
Communal representation and selfish parochial interests, 221.
Conciliation courts, 307.
Conference of medical research workers, 148.
Cornaro, Luigi, on old age, 364.
Cotton, Sir Henry, 98, 139; quoted, 266, 306.
Court of Directors, despatch of, 8, 27, 28, 50.
Crawley, A., on India, 252.
Creasy, quoted, 127.
Criminal justice, administration of, 311.
Cromwell's letter and speeches, 309.
Crozier, 90.

Dalhousie, Lord, scheme of, 50, 54.
Dandamis and Alexander, 260.
D'Arcy concession, 396.
Dar-ul-funum, 91.
Darwin, on specialization, 346.
Datta, Rasamay, 32.
De, S. K., quoted, 18, 38.
Death-rate in India, 148.
Deification, Pranjpye on, 125.
Delhi Assemblage of 1877, 183.
Demartialisation of Indian people, 223.
Demoralisation and titles, 127.
Denmark and mass education, 77.
Depressed classes and communal representation, 221; and separate electorate, 277.
Derozio, H. L. V., 14 *et seq.*
Desai, B., on new constitution, 439.
Despatch of 1854; quoted, 109.
Deva, Radhakanta, 32.
Diarchy, failure of, 193.
Dilke, quoted, 33, 232.
Discontent and its causes, 195.
Dissection, by an Indian, 53.
Divide and rule, 266.
Dixon, W. E., on tea-drinking, 336.
Dorabji, 130.
Dow, A., on Aurangzib, 316.
Dowry and the Bengali youth, 123.
Duff, Alexander, account of establishment of Vidyalaya, 12; and Scottish Church, 20; Smith's life of, quoted, 34, 370.
Duff, Grant, quoted, 289.
Duncan, Jonathan, 3.
Durant, Will, on India, 184.
Dutt, R. C., quoted, 343.

East, Sir Hyde, 12.
Education, Commission of 1882-83, quoted, 87; contribution towards, by Hindus, 94; danger of modern, 113, 133; defects of classical, 69; medium of, 56; and unemployment, 115, 133.
Educational code, 55.
,, despatch of, 1854, 109.
,, institutions, Government, 2.
,, policy, 57.
Electorate, views on separate and joint, 270.
Elliot, W., 149.
Ellison, Grace, 142.
Elphinstone, quoted, 289.
Emasculation of Indian people, 223.
Emerson, on old age, 366; on scholars, 327.
Empires, fall of, 256.
English education and Macaulay, 33; and Moslems, 48, 85.
English language, undue importance given to, 63.
Ethnology of Hindus and Moslems, 97.

European learning and employment, 29.
Evans, C. A. Lovatt, on specialization, 347.
Expenditure, for defence, 176; military, 167, 445.
Extravagance, orgy of, 182; of princes, 187, 198.

Farson, Nagley, on Russia, 73.
Fawcett, H., quoted, 182.
Federation of Indian Chamber of Commerce, 388, 394.
Floods and their causes, 156; in Midnapur and Orissa, 159.
Fraser, appeal for mass education, 110.
Free Church Institution, 20.

Galsworthy, quoted, 401.
Gardiner, A. G., on age and maternity, 153.
General Assembly's Institution, 21.
George, Lloyd, on India's services in great war, 412.
Ghatak, M. K., on vernacular medium, 66.
Ghosal, Jaynarayan, 9.
Ghosh, Motilal, on Bengal village in 1860, 152.
,, N., quoted, 348.
,, Ramgopal, 15.
Giolitti, 369.
Gokhale, G. K., on mineral resources of India, 395; on primary education, 71; on sanitation, 150.
Gooch, on German nationalism, 262.
Goodeve, H. H., 53.
Grant, Charles, 5.
Gray, H., on national army, 178.
Grey, 19.
Gupta Madhusudan, 53.
,, Sir K. G., on British policy, 175.
Guru craze, Paranjpye on, 125.
Gurukula, 331.

Hachirobei and the House of Mitsui, 407.
Halliday, on spread of education, 54.
Hankin, E. H., on the limitation of the expert, 349.
Hardinge, Lord, 46.
Hare David, 12; and Hindu College, 18.
Harries, F. R., quoted, 130.
Hartog Committee, quoted, 79.
Harvey, on costliness of law, 305.
Hasan, Yakub, on nationalism, 278.
Hastings, Warren, and encouragement of learning, 1.
Hazarika, K., on floods, 161.
Heber, Bishop, 25, 176.
High Court, 63.
Hindenburg, 370.
Hindu Chemistry, History of, 53.
Hindu College, Benares, 23.
,, ,, Calcutta, 13; and social institutions, 17; and David Hare, 18; conversion of, 49.
Hindus, as officers under Moslem Kings, 293.
History, verdict of, 409.
Hitler, 197, 370.
Hoare, Sir S., quoted, 192.
Hollander, on drawback of old age, 352.
Holmes, O. W., on longevity, 366; on specialization, 344.
Hossain Shah, 89.
Howell, quoted, 1, 26, 31, 40, 42.
Hussain A., on Bengal rivers, 162.
Hydraulic research laboratory, need for, 166.

Idealism vs. realism, 128.
Imperial Agricultural Research Council, 71.
,, Chemical Industries (India) Ltd., 389.
Imperialism, 248; note on British, 448.

Inchcape Committee, 172.
Income of agriculturists, 204.
India, before the British occupation, 234; disposal of mineral wealth in, 395; under Aurangzib, 239.
Indianisation of army, 178.
Indo-Burma financial adjustment, 391.
Industries, failure of educated boys in, 447; new constitution and nascent, 387.
Inglis and Scottish Church, 20.
Inorganic chemistry, possibilities of, 377.
Inter-provincial conspiracy case, 63.
Irrigation, neglect of, 136.
Irwin, quoted, 245.
Italy, agricultural improvements in, 78; malaria in, 141; primary education in, 74; retrenchment in, 196.

Jahangir, administration of justice by, 315.
Japan, press in, 75; primary education in, 74; wages in, 199.
Jervis, Colonel, on vernacular literature, 104.
Jinnah, and separate electorate, 270.
Joint electorate, nationalist Muslims on, 279.
Jones, Sir W., 2.
Joshi, G. V., quoted, 395.
Jugget Set, Torrens on, 241.
Justice, administration of, under Muslim rulers, 314.
Jute export duty, 215.

Kamal Pasha, 142; and Aga Khan, 273.
Karim, Abdul, on communal government, 274.
,, Rezaul, on communal award, 270.
Kellermann, B., views on India, 187.
Kennedy, P., quoted, 316.
Khaitan, D. P., on income of agriculturists, 205.
Kina Bureau, 144.
Kolbe, on van't Hoff, 353.

Lahiri, Ramtanu, 15, 37.
Landlords, distress of, 205.
Lankester, on tuberculosis in Bengal, 145.
Latiff, Nawab Abdul, 86.
Law, administration of, 300; dilatoriness of, 304.
Leacock, S., quoted, 349.
League of Nations and India, 414.
Lengyel, on Hitler, 370.
Linlithgow Commission, on primary education, 81.
Literacy among Hindus, 99.
Literary Society, Calcutta, 32.
Litigations, expenses of, 303.
Londonderry, Lady, 117.
London Missionary Society, 21.
Longevity, physician's receipt for, 366.
Louis XIV, 185, 361.
Ludwig, E., quoted, 432.

Macaulay, Lord, and English education, 33; on law's delay, 309; minute of, 31; quoted, 263, 308, 333, 421; on Schitab Roy, 225.
MacDonald, quoted, 266, 268, 306, 415.
Macdonell, A. G., quoted, 263, 368.
Mackenna, 83.
Mackinnon, 393.
MacSwiney, Terence, on demoralisation, 122, 127.
Madrassa, 2; educated moslems on, 88; Abul Hossain on, 90; Z. Rahim on, 426.
Mahmood, Justice Syed, 85.
Mahmud, on joint electorate, 281.
Malaria, causes of, 136; in Angora, and in Italy, 141; man-made, 162; and society, 143.

Malcolm, Sir John, 6; on Bengal, 241, 293.
Marsh, Charles, 13.
Marshman, 11; and vernacular education, 37.
Mass education, 36, 42, 110; and Lord Auckland, 45; in China, 120; in Denmark, 77.
Matriculation Regulations Committee, 61.
May, Robert, 9.
Mayhew, A., quoted, 34, 62, 63.
Maxwell, General, 356.
Mazumdar, T. N., on tuberculosis, 146.
Medical College, foundation of, 51.
Medium of instruction, 104; Government of Bombay on, 106.
Meek, on India's export, 254.
Megaw, Sir John, on tuberculosis, 149.
Mercenary army vs. national army, 174.
Meyer, Victor, 380.
Middleton, Bishop, 13.
,, quoted, 276.
,, Lord, on award, 221.
Military expenditure, 167, 177; note on, 445.
Mill, James, 22, 35.
,, John Stuart, 22; quoted, 223, 248, 398.
Minto, Lord, 7.
Mitra, J. M., on illiteracy, 82.
,, K. P., on Pre-British India, 235; quoted, 296.
,, Raja Digambar, 137.
Mitsui, house of, 407.
Modern system of education, 113.
,, Deification, Paranjpye on, 125.
Moira, Lord, and public education, 11.
Moissan, 380.
Momen, on primary education, 82.
Money-making and culture, 131.
Monroe, quoted, 119.
Mookerjee, Shyamaprosad, quoted, 94.
Morley, Lord, quoted, 357.
Moslem education, expenditure on, 88.
Moslems, and English education, 48; educational backwardness of, 85; views on joint and separate electorate of 279.
Motar cars, craze for, 337.
Mouat, project for a central University, 47, 55.
Mrityunjay, 38.
Muhammadan College, Calcutta, 24.
Muir, Ramsay, on India, 413.
Mukherjee, Dakshinaranjan, 15.
Muktabs, 87, 427.
Mullick, Rasik Krishna, 15.
Mullin, Claud, on litigation, 305.
Munro, I. S., quoted, 74, 78; on Italian budget, 198.
,, Sir T., 6; quoted, 226.
Muslim, education and government, 87; League, 287.
Mussolini, 142, 368.

Nair, Sir S., on ryotwari system, 232.
Napier, Sir R., 168.
Nationalism in Europe, 263; in India, 259.
National Society, 7.
Native states, talents in, 229.
Nazir Shah, 89.
New constitution, 387; note on, 439; views of M. L. Shah on, 387.
New Delhi, construction of, 184.
Newlands, 355.
Newmann, Sir G., 148.
New provinces, creation of, 216.
Normal schools, 55.
Norton, N. R., on state-aid to industries, 437.
Nourishment of Indians, 149.

Occultism, Paranjpye on, 125.
Old age, battle against, 351.
Omichund, Torrens on, 241.

Oneida community, 405.
Orientalists, controversy with anglicists, 21, 30, 104.
O'Shaughnessy, W. B., 53.
Ostracism of Indians, 226.
Ottawa Pact, 254.

Padshah, 130.
Pais, 143.
Pannikar, quoted, 229.
Paranjpye, R. P., on guru craze, 125.
Paris International Congress, 140.
Pathan kings of Bengal, policy of, 224.
Patsala, 37.
Penalisation of Bengal, 212.
Pentland, Lord, on Russia, 73.
Perfectionist experiment, 405.
Perkin, W. H., 371.
Perry, Sir E., on medium of instruction, 104, 106.
Persia, disposal of mineral wealth in, 395.
Pinkevitch, A. P., on education of adults, 72.
Police budget, note on, 438.
Prague University, student life in, 323.
Pre-British Bengal, 236.
Presidency College, 49.
Press in Japan, 75; in China, 77.
Primary education, Act (Bengal), 103; in Bengal, 79; in Calcutta, 101; in Denmark, 77; in Italy, 74; in Japan, 74; and Linlithgow Commission, 81; neglect of, 71.
Prime Minister's award, 428.
Prinsep, Henry T., 22.
Protection of Indian iron, 256.
Psychology of the Bengali youth, 112.
Public debt of India and the Congress, 201.
Public instruction, general committee of, 21.
Punjab University, extravagance among students of the, 319.

Quanango, K., quoted, 289.
Quinine mystery, 144.

Rahim, Z., on communalism, 423.
Rahman, A. F., 88.
Railways, and deterioration of rivers, 164; and malaria, 136.
Rajagopalachariar, C., on primary education, 84.
Rajiblochan, 38.
Ramamurthi, S. V., on illiteracy, 83.
Ramsay, Sir W., 379.
Rashid Galip Bey, 91.
Rây, Harish Chandra, educational activity of, 451.
Rây, P. C., *apologia pro vita sua*, 367; Bancroft on, 367; on depressed classes, 277; an experience of, 399; facsimile of handwriting of, 385; James on, 375; multifarious activities of, 367; quoted, 180, 227; Stapleton on, 376.
Ray, P. R., 358.
Realism vs. idealism, 128.
Redmond, 356-7.
Renan, quoted, 299.
Residential hostels and westernisation, 318.
Retrenchment in army, 178.
Richards, T. W., 380.
Riyasat case, 304.
Robertson, Sir C. G., 116.
,, A., 142.
Ronaldshay, Lord, on malaria, 143.
Ross, on malaria, 136.
Round, Dora, on student life in Prague, 323.
Roy, Ram Mohun, 1, 38, 90, 109; and English education, 12; and Hindu College, 18.
Roy, Upendra Nath, on medium of instruction, 66.
Roy, Schitab, 225.
Royal Agricultural Commission, 71.
Russell, Bertrand, on student movement in China, 119; quoted, 268.
,, P., 9.

Russia, literacy in, 72.
Russian aggression, fear of, 177.
Ryotwari system, 232.

Sadhu, T., on litigation, 302.
Saha, M. N., on hydraulic research laboratory, 166.
Sahlin, Axel, 130.
Sahni, R. R., on economic resources of India, 390.
St. Xavier's College, 21.
Salaries in India and elsewhere, 191.
Salisbury, Marquis of, quoted, 167, 169.
Salt industry, 245.
Samad, Abdus, on communal award, 282, 286.
Samaldas, Sir L., on civil service, 196; on Japan, 75.
Sanskrit College, Benares, 3, 25.
,, ,, Hindu, proposal for, 7.
Sanskrit education, government expenditure on, 88.
Sarbadhikary, Sir D. P., on educational policy, 80.
Sarkar, J. N., quoted, 180, 240, 291, 292, 315, 361.
,, N. R., on Ottawa pact, 254.
,, P. B., 353.
,, Prannath, on medium of instruction, 66.
Sastri, Bapoo Deva, 26.
,, Sivanath, quoted, 15, 37.
Satter, A., on Aga Khan, 273.
Schangte-tong, General, 140.
School Book Society, 39.
School Society, British and foreign, 7.
Scientific specialization, 344.
Seal, B. N., on residential university, 330.
Seaman, H. W., on Bernard Shaw, 116.
Seeley, on British conquest of India, 174; quoted, 33, 223, 233.
Sen-Gupta, N., on residential University, 330.
,, N. R., on tea-drinking, 336.
Separate electorate and Jinnah, 270; nationalist Muslims on, 279.
Serampore missionaries, 10.
Sett, J. S., on vernacular languages, 105.
Shah Jahan, administration of justice by, 315.
Shah, K. T., on Burma's debt to India, 392.
,, M. L., on new constitution, 387.
Shakespear, 22, 32.
Shaw, Bernard, 116; on Indian intelligentsia, 124; on perfectionist experiment, 406; on success in business, 131.
Sherbourne, W., 11.
Sherwani, T. A. K., on joint electorate, 280.
Siegfried, A., quoted, 341.
Singha, S. N., quoted, 92.
Sinha, Lord, quoted, 223.
Sircar, Sir Nilratan, on residential university, 330.
Sivaswami Aiyar, Sir P. C., 173.
Smith, George, quoted, 34; on A. Duff, 370.
,, Robert, P., 6.
Sophocles, 363.
Spencer, H., on fashion, 320.
Stanley, H. M., 432.
State-aid to industries, 437.
Stewart, quoted, 239, 316; on Pathan kings of Bengal, 224.
Strachey, Sir J., on education, 87; on Indian administration, 171.
Student life in Cambridge, 327; in Prague, 323.
,, movement in China, 119.
Subadars of Bengal, policy of, 224.
Sukkur barrage scheme, 162.
Sur dynasty, 290.
Susruta, 53.
Swadeshi movement, 129, 133.

Taine, on classical education, 68.
Taylor, quoted, 297.
Tea and Ottawa pact, 255.
Tea-drinking and its effects, 334.
Tea restriction scheme, 255.
Teignmouth, Lord, 6.
Temple, Sir R., quoted, 245.
Tenants, distress of, 205.
Tennyson quoted, 344.
Thomas, on medium of instruction, 107.
Time, wastage of, 59.
Titles and demoralisation, 127.
Tobacco-tax, objection to, 437.
Toleration, religious, 297.
Torrens, on Omichund and Juggat Set, 241.
Trevelyan, C. E., quoted, 13.
Tuberculosis in Bengal, 145; in England, 155.
Tuccavi loan, 160.
Turkey, education in, 91.

Unemployment, 115; in Madras, 134; in Bengal, 432.
Universities conference, 115.
University, of Calcutta, 47; and vernacular medium, 60; contributions towards, 411; of Istanbul, 91; residential, 328.
University education, note on, 429.
,, students, expensive habits of, 318.
Untouchability and the Bengali, 123.
Ure, Andrew, 374.

Van't Hoff, 380; Kolbe on, 354.
Vernacular, educated Moslems on, 89; in the University, 60; literature, 36, 40; usefulness of, 67.
Vernacularisation, 62.
Vidyalaya, 12, 14.
Vidyapati, 89.
Vijayragavaracharlar, Sir T., quoted, 84.
Visveswaraya, Sir M., quoted, 208.

Waggon scandal, 201.
Wahed Hosain, quoted, 316.
Walker, Sir J., letter from, 382.
Wang, T. C., on student movement in China, 118.
War costs of India, 203.
Ward, 11.
Water-logging of Calcutta suburbs, 157.
Wealth of Bengal, drain of, 333.
Wellesley, Marquis of, 4, 5.
Wells, H. G., quoted, 321.
Westernization, 318.
White, G., 167.
Wilberforce, 5.
Wilkinson, 25.
Willcocks, Sir W., 140.
Willingdon, Lord, on India's point of view, 412.
Willoughby, J. P., on medium of instruction, 107.
Willstätter, R., 354.
Wilson, H. H., 7, 22, 85.
Woodroffe, Sir J., 153.
Wordsworth, W. C., on residential university, 331.

Young, Thomas, 355.
Youth vs. age, 368.
Youth movement in China, 118.
Yusuf Ali, H., 97.

Zetland, Marquess of, 221.

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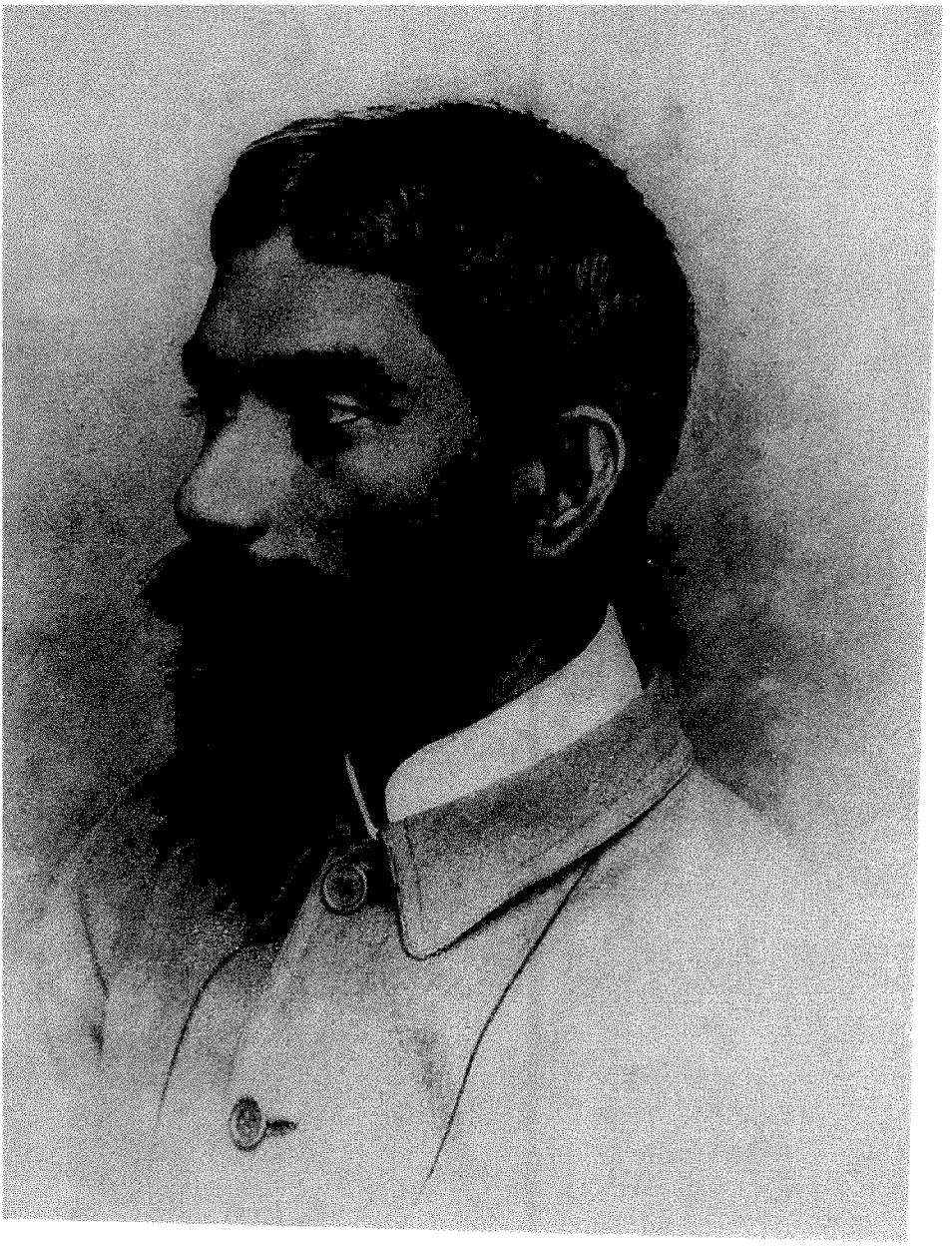

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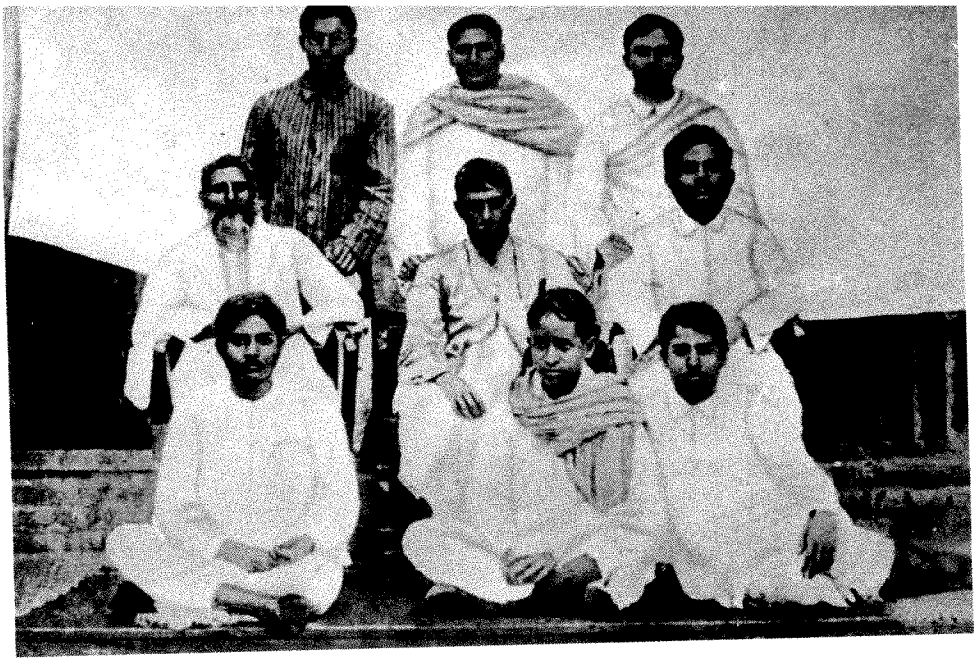

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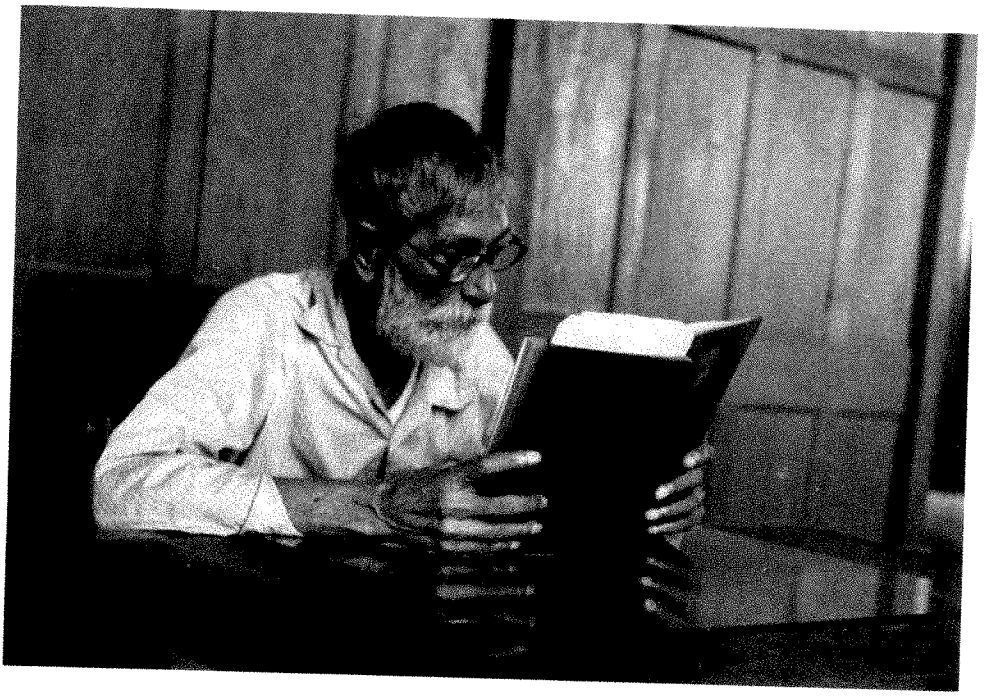

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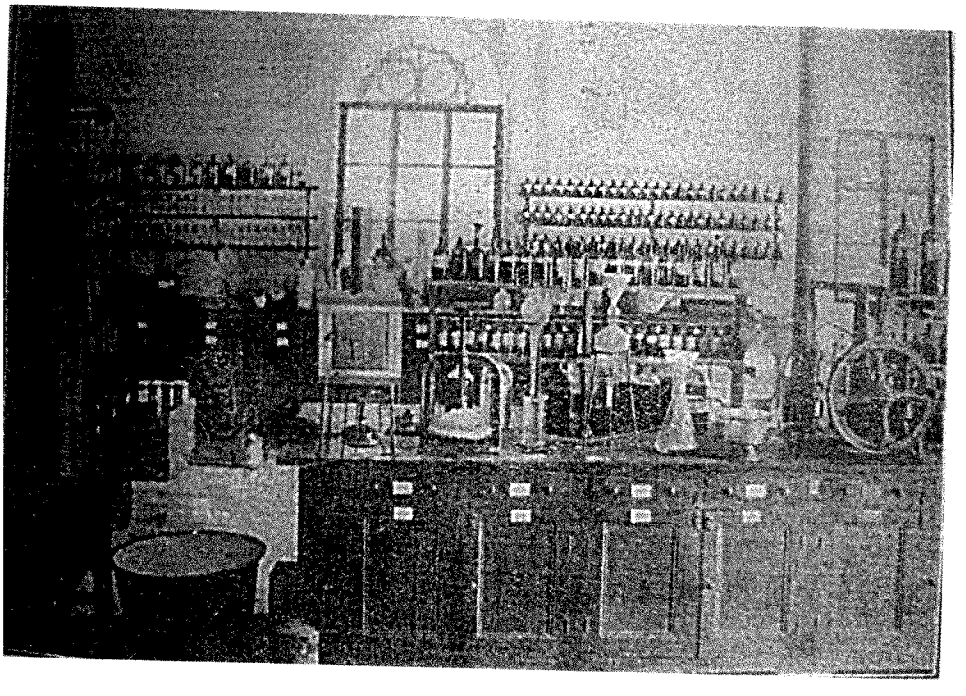

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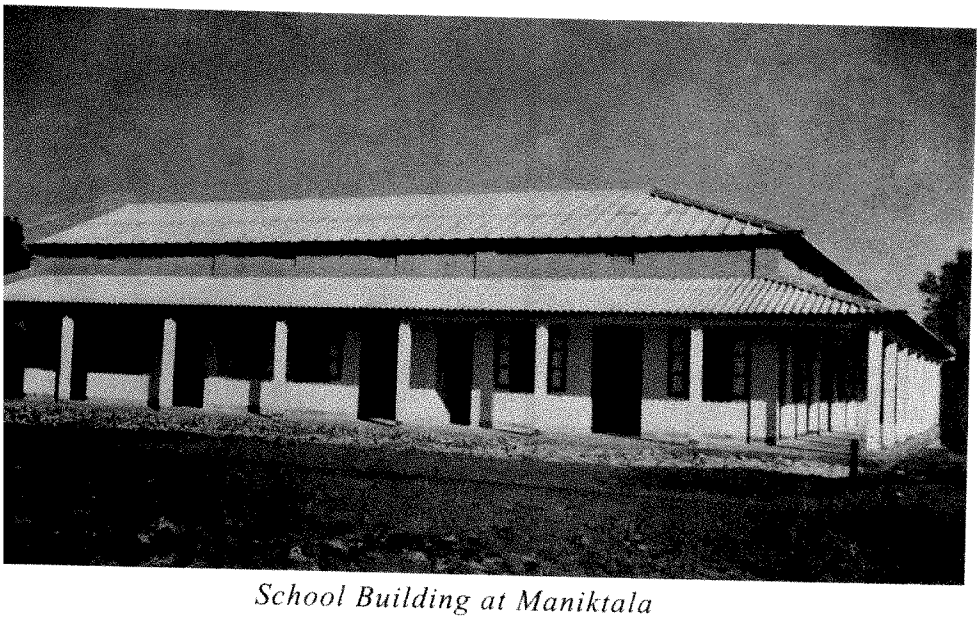

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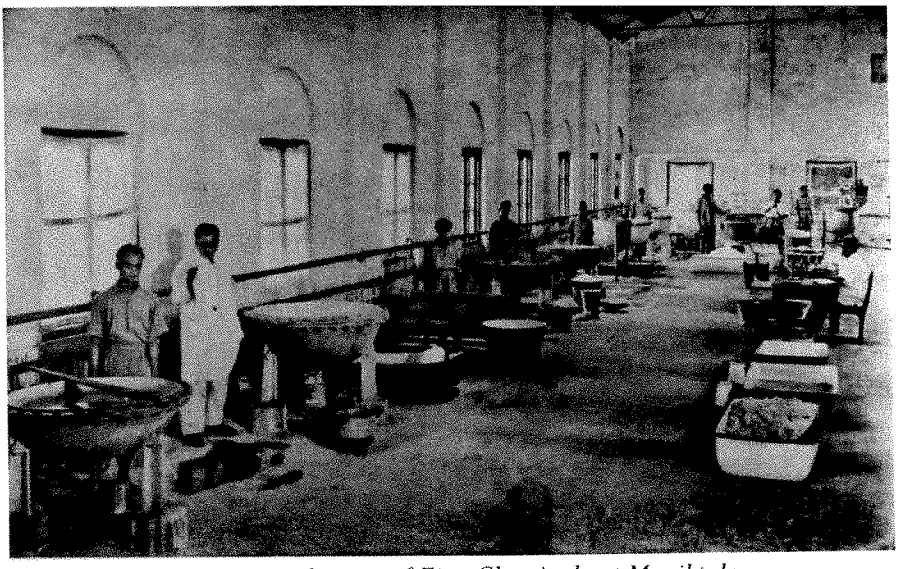

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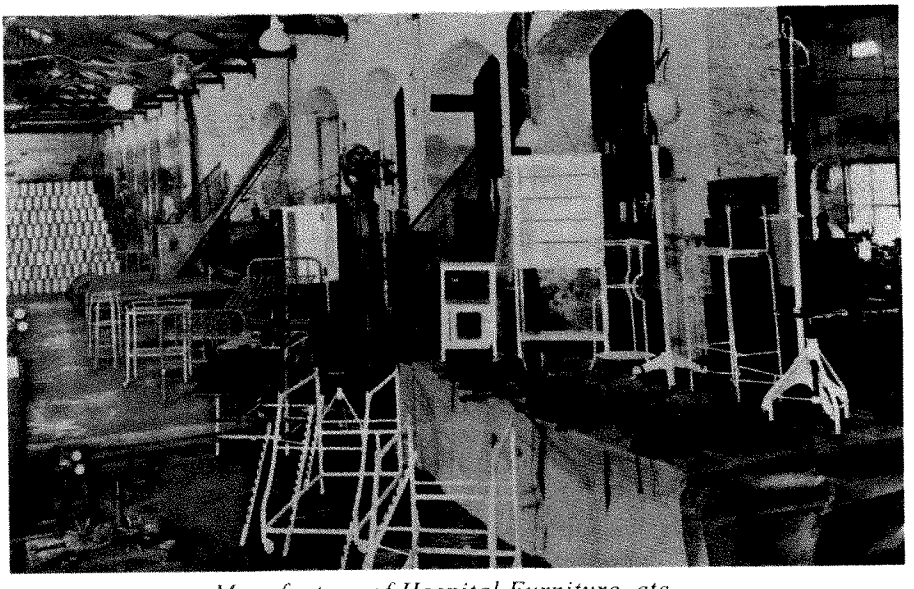

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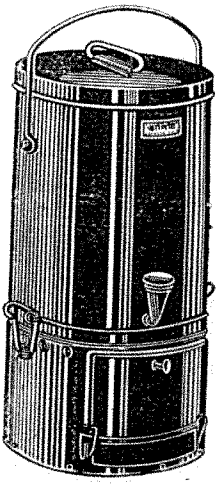

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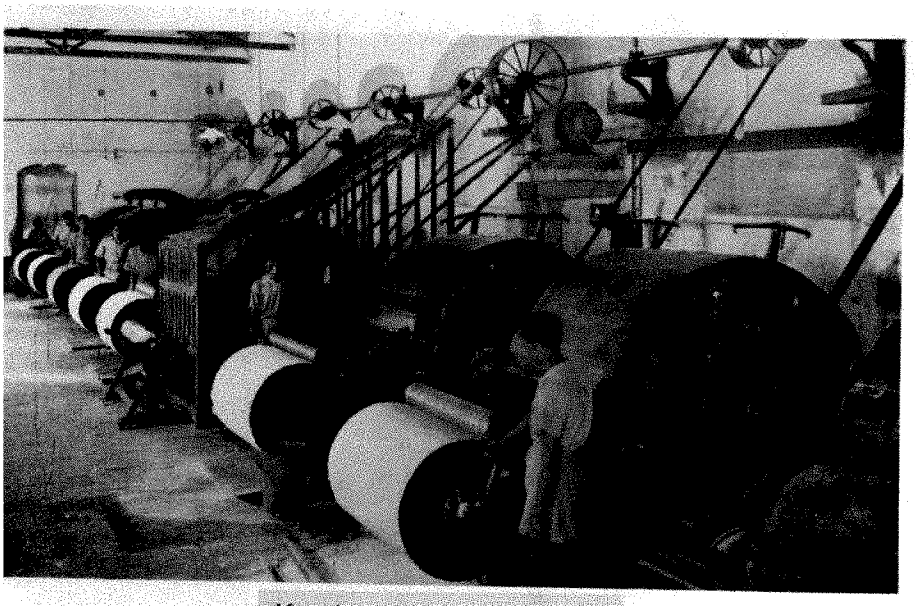

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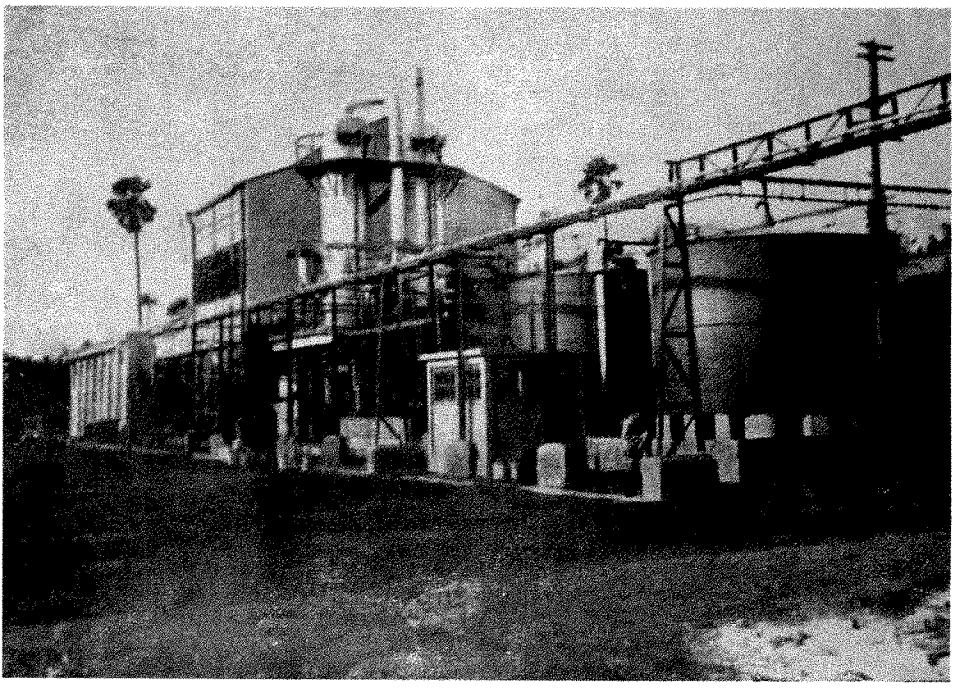

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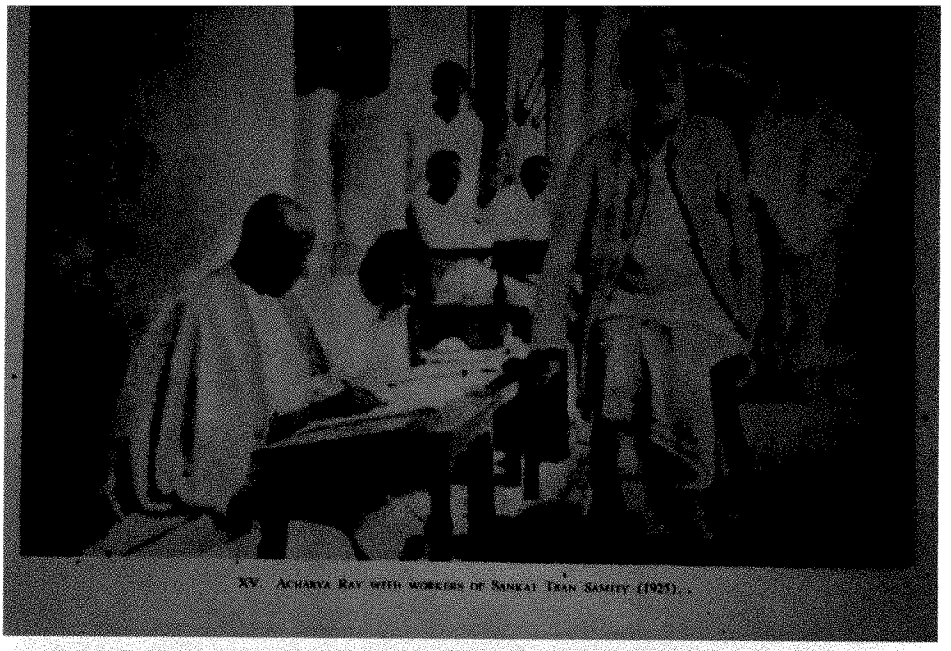

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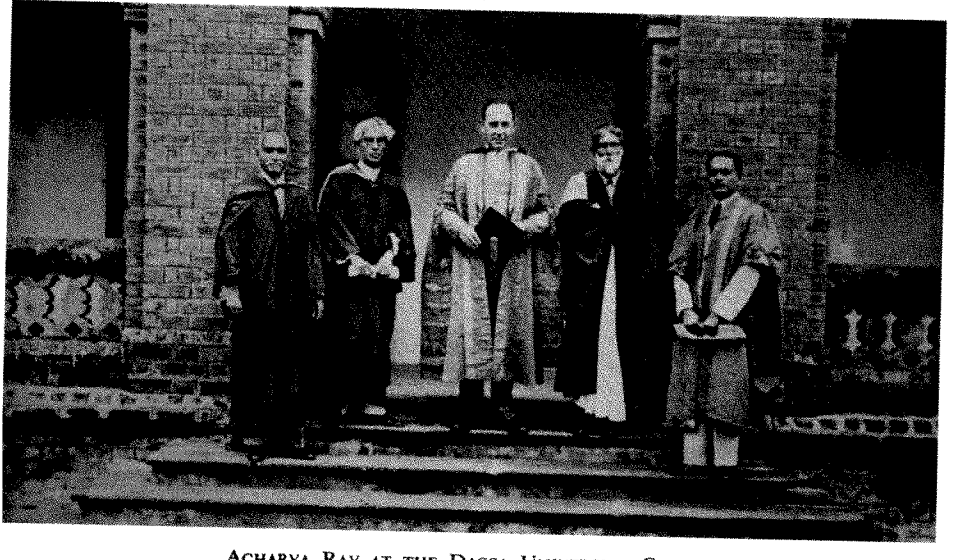

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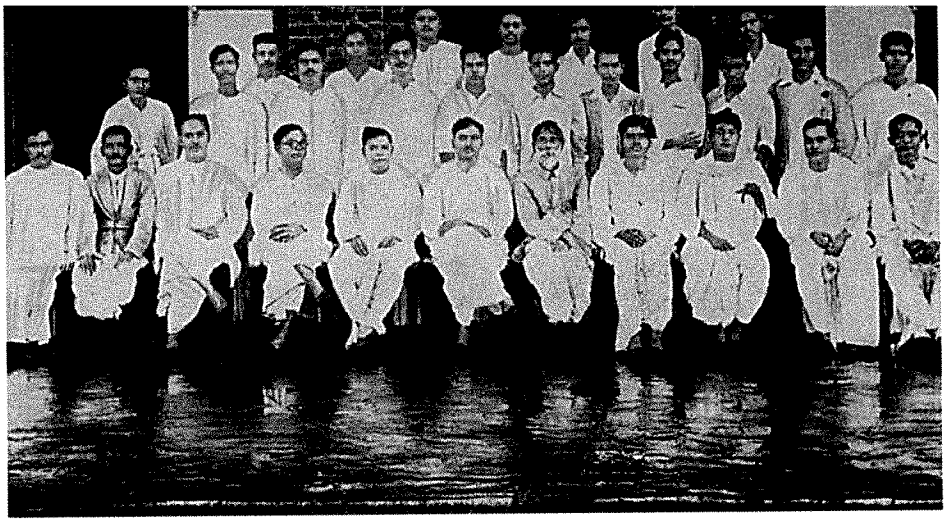
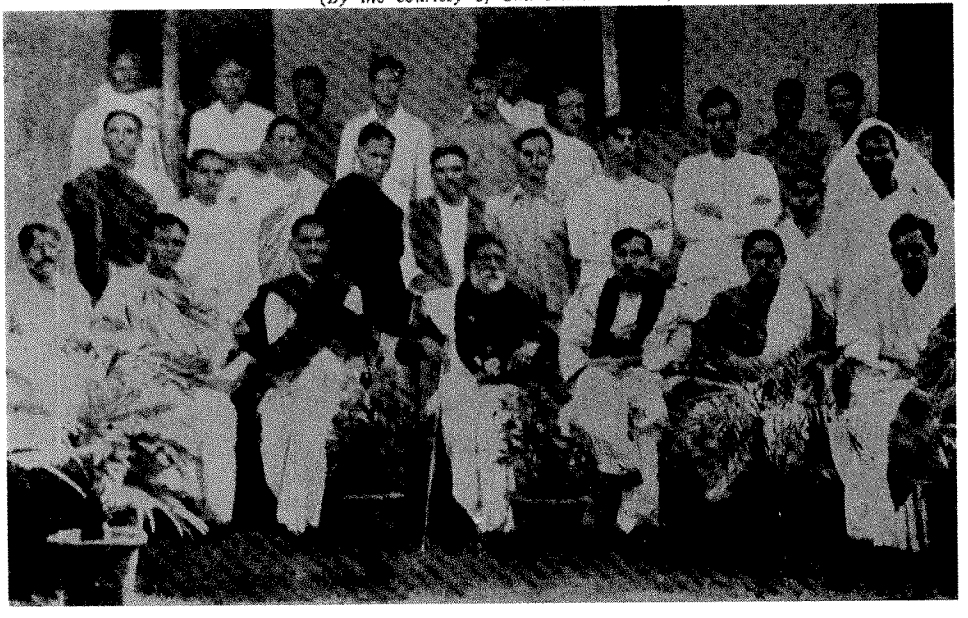


ACHARYA RAY AT DACCA IN 1936.

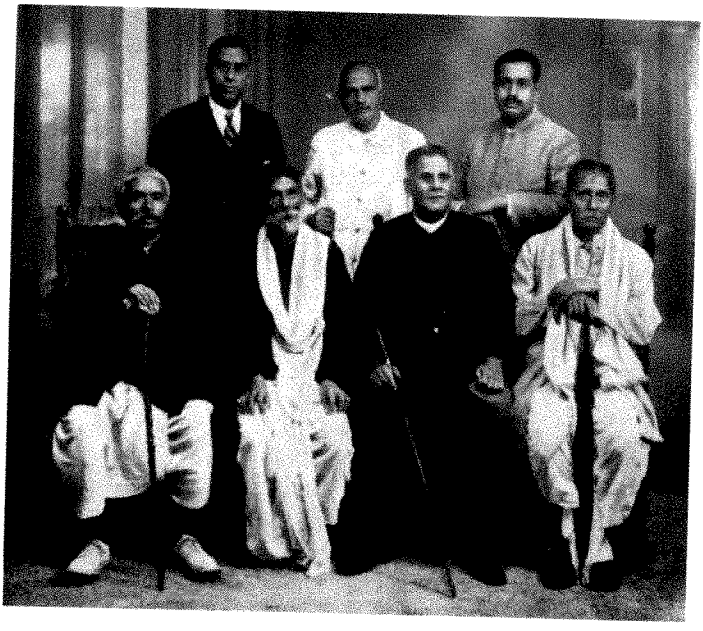
Sitting (L.-R.)—Dr. P. K. De, Shri S. K. Basak, Dr. S. S. Guha Sarcar, Dr. K. P. Basu, Dr. J. K. Chowdhuri, Dr. J. C. Ghosh, Acharya Ray, Dr. P. B. Sarkar, Prof. S. N. Bose, Dr. K. Banerjee, Dr. S. R. Khastagir.
Standing (First row)—Dr. J. Bakshi, Dr. M. C. Nath, Shri T. P. Bardhan, Dr. S. B. Sen Gupta, Shri M. L. Narasinha Murti, Dr. S. K. Bhattacharyya, Dr. T. L. Ramachari, Dr. K. R. Kar, Shri L. M. Roy, Shri C. R. Bose, Shri N. M. Bose.
Standing (Second row)—Dr. S. N. Sarkar, Dr. P. C. Rakhit, Shri B. M. Kar, Shri Sukumar Sen, Shri B. Chakrabórty, Shri K. Dasgupta, Shri N. Datta.

(By the courtesy of Sm. Nilima Ghosh)



ACHARYA RAY AT THE SADHANA OUSADHALAYA IN DACCA (1936) WITH THE PROPRIETOR SHRI J. C. GHOSE ON HIS RIGHT AND DR. J. C. GHOSH ON HIS LEFT.

(By courtesy of Shri Jogesh Chandra Ghose)

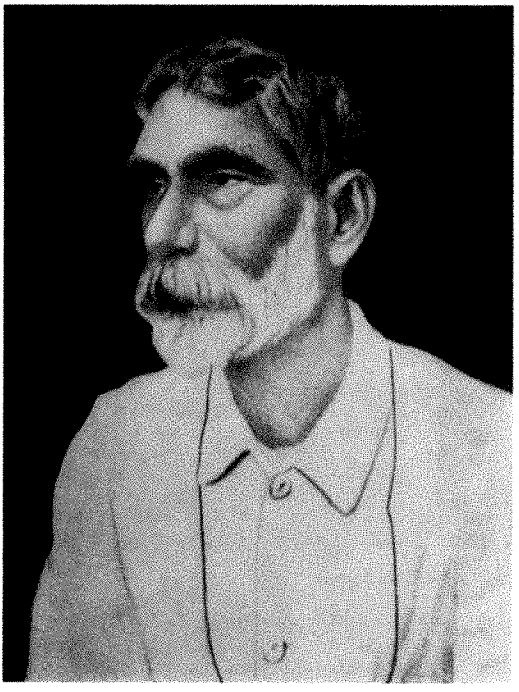


BOARD OF DIRECTORS, 1924

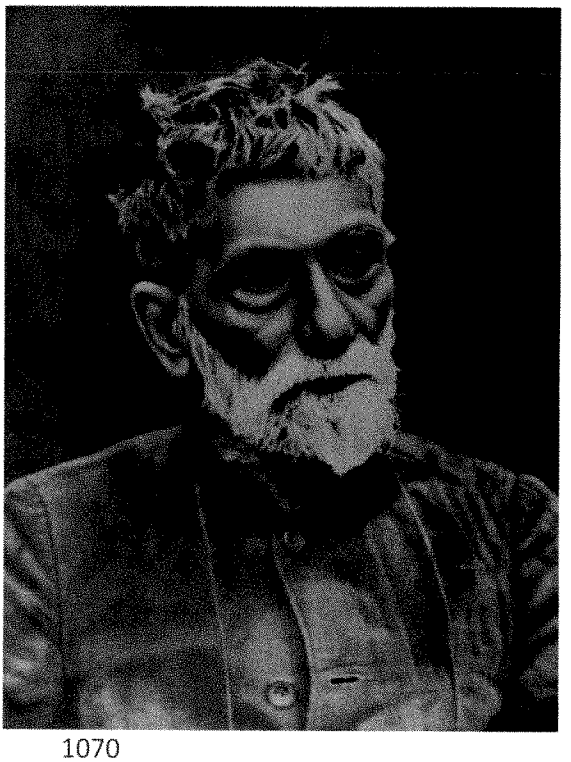
Standing—Left to Right—
Rai Bahadur Haridhan Dutt,
Sri Satyananda Bose and
Sri Rajshekhar Bose.

Sitting—Left to Right—
Sri W. M. Roy, Sir P. C. Ray,
Rai Bahadur Chunilal Bose and
Rai Saheb Kunja Behari Basu.

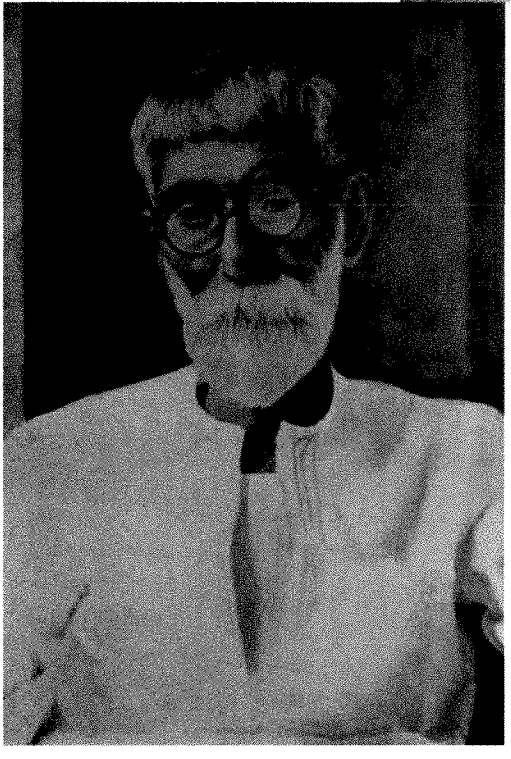
ACHARYA RAY WITH DELEGATES OF THE INDIAN SCIENCE CONGRESS.
(On the occasion of its Silver Jubilee Session in 1938)



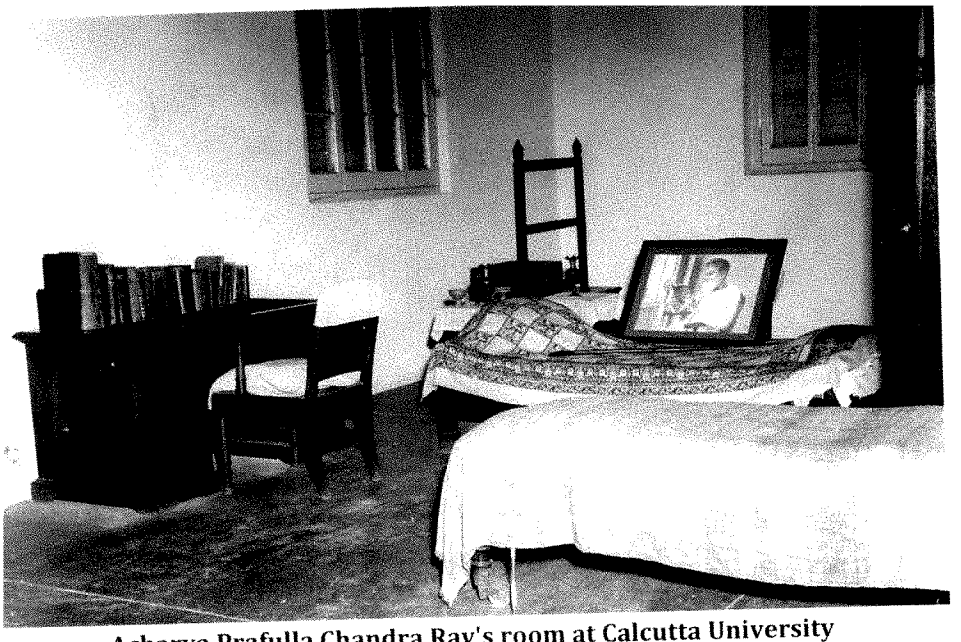
ACHARYA RAY IN 1932



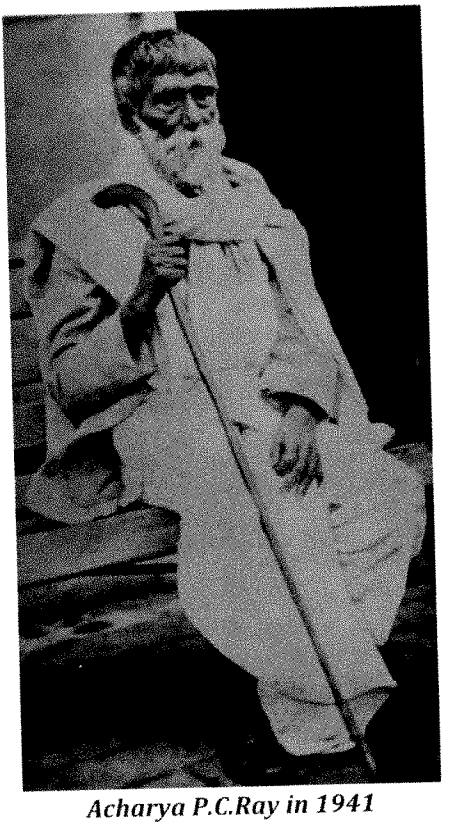
ACHARYA RAY IN 1940.
(*Photo — 'Statesman'*)



ACHARYA RAY IN 1941



Acharya Prafulla Chandra Ray's room at Calcutta University



Acharya P.C.Ray in 1941